

OLYNTIUS

NECROLYNTIUS,

A STUDY IN GREEK BURIAL CUSTOMS AND ANTHROPOLOGY

EXCAVATIONS AT OLYNTHUS

CONDUCTED BY THE JOHNS HOPKINS UNIVERSITY EXPEDITION UNDER THE
AUSPICES OF THE AMERICAN SCHOOL OF CLASSICAL STUDIES
AT ATHENS, GREECE

DIRECTED AND EDITED BY DAVID M. ROBINSON

PART XI

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A STUDY IN GREEK BURIAL CUSTOMS AND ANTHROPOLOGY

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STUDIES IN ARCHAEOLOGY NO. 32
EDITED BY DAVID M. ROBINSON

EXCAVATIONS AT OLYNTHUS

PART XI

NECROLYNTHIA,

A STUDY IN GREEK BURIAL CUSTOMS
AND ANTHROPOLOGY

39331

BY

DAVID M. ROBINSON

WITH THE ASSISTANCE OF FRANK P. ALBRIGHT AND WITH AN APPENDIX
ON SKELETONS EXCAVATED AT OLYNTHUS BY JOHN LAWRENCE ANGEL

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PREFACE

- Μεν. Ποῦ δὲ οἱ καλοί εἰσιν ἢ αἱ καλάι, Ἑρμῇ; ξενάγησόν με νέηλυν ὄντα.
- Ερμ. Οὐ σχολή μοι, ὦ Μένιππε· πλὴν κατ' ἐκείνο ἀπόβλεψον, ἐπὶ τὰ δεξιὰ, ἔνθα ὁ Ὑάκινθος τέ ἐστι καὶ Νάρκισσος καὶ Νιρεὺς καὶ Ἀχιλλεὺς καὶ Τυρῶ καὶ Ἑλένη καὶ Λήδα καὶ ὅλως τὰ ἀρχαῖα πάντα κάλλη.
- Μεν. Ὅσῃ μόνῃ ὁρῶ καὶ κρανία τῶν σαρκῶν γυμνά, ὅμοια τὰ πολλὰ.
- Ερμ. Καὶ μὴν ἐκεῖνά ἐστιν ἅ πάντες οἱ ποιηταὶ θαυμάζουσι τὰ ὅσῃ, ὧν σὺ ἔοικας καταφρονεῖν.
- Μεν. Ὅμως τὴν Ἑλένην μοι δείξον· σὺ γὰρ ἂν διαγνοίην ἔγωγε.
- Ερμ. Τοντὶ τὸ κρανίον ἢ Ἑλένη ἐστίν.
- Μεν. Εἴτα διὰ τοῦτο αἱ χίλιαι νῆες ἐπληρώθησαν ἐξ ἀπάσης τῆς Ἑλλάδος καὶ τοσοῦτοι ἔπεσον Ἕλληγές τε καὶ βάρβαροι καὶ τοσαῦται πόλεις ἀνάστατοι γεγόνασιν;
- Ερμ. Ἄλλ' οὐκ εἶδες, ὦ Μένιππε, ζῶσαν τὴν γυναῖκα· ἔφης γὰρ ἂν καὶ σὺ ἀνεμέσητον εἶναι

τοιγῶδ' ἀμφὶ γυναικὶ πολὺν χρόνον ἄλγεα πάσχειν·

ἐπεὶ καὶ τὰ ἀνθη ξηρὰ ὄντα εἴ τις βλέποι ἀποβεβληκότα τὴν βαφήν, ἄμορφα δῆλον ὅτι αὐτῷ δόξει, ὅτε μέντοι ἀνθεῖ καὶ ἔχει τὴν χροάν, κάλλιστά ἐστιν.

- Μεν. οὐκοῦν τοῦτο, ὦ Ἑρμῇ, θαυμάζω, εἰ μὴ συνίεσαν οἱ Ἀχαιοὶ περὶ πράγματος οὕτως ὀλιγοχρόνιον καὶ ῥαδίως ἀπανθοῦντος ποιοῦντες.

(Lucian, *Dialogues of the Dead*, No. 18:

Dialogue between Menippus and Hermes.)

In this eleventh volume of the *Excavations at Olynthus* "let's talk of graves." In 1928, when we excavated the Neolithic Settlement, the only one at that time excavated in Macedonia, I made many attempts to locate the neolithic cemetery but failed to find neolithic or even classical burials. In 1931 I again tried to discover the classical cemeteries. I was convinced, as Longfellow says in *Amalfi*, that "cities have their graves"; and, after several failures, on one and the same day (April 6) trial trenches disclosed two cemeteries. The one to the west I called "Riverside Cemetery" because it was near the river on a breezy precipice some fourteen meters in height in some sections. Many an Olynthian was satisfied with a humble, nameless grave:

Mine be the breezy hill that skirts the down;
Where a green grassy turf is all I crave,
With here and there a violet bestrewn,
Fast by a brook or fountain's murmuring wave;
And many an evening sun shine sweetly on my grave.

(Beattie, *The Minstrel*, II, 17.)

The other cemetery was on a flat-topped hill,¹ some 700 meters to the south-east of the Megali Toumba, and so was called the "East Cemetery." Here in a trial trench running from north to south on top of the hill, at a depth of 1.10 m., a spectacular find was made of a cache of some thirty-eight terracottas, nine of which later seemed to be connected with definite graves.² Many were unbroken and most had paint still preserved on them. All originally were evidently unbroken, but the pressure of the earth above had damaged them. The figures are of many types, the most common a seated female figure of archaic type (early fifth century B. C.), with the paint remarkably well preserved on the drapery. Red and green predominate, and especially the red paint on the lips, when the figures were first unearthed, was of a brilliant carmine color (*Olynthus*, VII, nos. 216-219, all from the same mould; colored Pl. III). Another interesting early type in the cache was a seated lady holding a child (*κουροτρόφος*, *Olynthus*, VII, nos. 249-253), of which five examples from the same mould were found. Another type of seated figure, of a later date, was represented by nine examples from the same mould (*Olynthus*, VII, nos. 229-237). A large number of terracotta masks were found, varying in date from the sixth century to just before the destruction of *Olynthus* in 348 B. C. (*Olynthus*, VII, nos. 8, 29-33, 36-39, etc.). Other types included standing draped female figures, comic representations, cocks, birds, etc. Two exceptionally beautiful dancers of the fourth century were uncovered (*Olynthus*, VII, no. 185 and colored frontispiece, no. 182). These figurines show that the East Cemetery was in use from the sixth century to nearly 348 B. C. This cache probably indicates a dump from an overcrowded supply or the destruction of earlier tombs to make way for new burials. In

¹ Cf. Robinson, *Olynthus*, II, Survey, Pl. IV.

² Cf. Robinson, *Olynthus*, VII, nos. 8, 132, 166, 191, 208, 243, 285, 333, 346 (cf. this volume, XI, graves nos. 561, 561, 589, 591, 567, 591, 567, 576, 594). The others, *Olynthus*, VII, nos. 29, 30-33, 36-39, 125, 145, 158, 168, 169, 182, 225, 229-231, 233, 234, 259, 278, 281, 313, 327, 335, 359, 369, were all stacked together as if they had been dumped there. Other terracottas (*Olynthus*, VII, nos. 4, 17, 24, 25, 135, 185, 198, 207, 216-219, 222, 223, 227, 228, 236, 237, 249-251, 261, 283, 284, 287, 314-316, 321, 352, 360) were also found in trenches and could not be assigned to definite graves.

the *American Journal of Archaeology*³ I have given a partial list of such deposits from temples or sanctuaries and have argued that the deposit of terracotta material (not later than the fourth century B. C. and including much earlier material) which I excavated at Corinth came from the sanctuary of some hero, but evidently the Olynthian cache was from the graves rather than a common deposit for one or many burials.

During the whole of the campaigns of 1931 (with the assistance of Alexander H. G. Schulz and Mary Ross), 1934 (with the assistance of Saul Weinberg) and 1938 (with the assistance of Frank P. Albright and J. Lawrence Angel) I kept a group of some fifty to sixty workmen busy digging graves. In all some six hundred have been excavated. Plate LXIII shows the location and types of those in Riverside Cemetery. Plate LXV shows those in the North Cemetery, and Plate LXVII those in the East Cemetery. Enough material has been gathered to make possible not only a catalogue of the graves and their contents but also a commentary and general consideration of Greek burial customs in the fifth and fourth centuries B. C. To ascertain if there was any grouping of the graves by family or any other peculiarities of arrangement, we first removed only the superficial earth from above and around the burials, marking their locations with numbered stakes placed at the east ends, and delaying the final uncovering until a large area had been exposed. Then the graves were completely cleared, their relative positions noted, and the tomb enclosures opened.

³ X, 1906, pp. 164-165, 172-173. Cf. "A Hellenistic Deposit at Corinth" (though many of the terracottas are earlier and like those I published) discussed by Gladys R. Davidson (now Mrs. Saul Weinberg) in *Hesperia*, XI, 1942, pp. 105-127. Many of the snake and helmet stelae (pp. 113-114) cannot be Hellenistic. Cf. the similar eleven Hellenic ones excavated and published by me (*A.J.A.*, *loc. cit.*, pp. 170-172, Pl. XIII, 24), to which Mrs. Weinberg fails to refer, as also (p. 117, no. 47) to the eleven similar terracotta mirrors (*A.J.A.*, X, 1906, p. 166, Pl. XI, 16) and (pp. 118-124) to the ten terracotta shields (*A.J.A.*, X, 1906, pp. 170-171, Pl. XII, 21). Such shields are not as rare as Mrs. Weinberg thinks and many are much earlier in date. Cf. the many parallels, even of the oblong as well as circular type, cited by me from Eretria, Eleusis, Menidi, etc. Professor Broneer in discussing another deposit in "Hero Cults in the Corinthian Agora," *Hesperia*, XI, 1942, pp. 128-161, especially pp. 148, Fig. 7-150, does not refer to my article and does not seem to know that I have already argued for a hero cult at Corinth.

But we found no special groupings other than several infant burials together or superimposed burials which might indicate members of the same family. Unfortunately there were no important or large tomb-groups as in Etruscan cemeteries,⁴ so that it has seemed advisable to publish the vases, coins, terracottas, and metal and other objects in the separate volumes on those subjects, and those not yet published will be discussed in coming volumes on the vases, terracottas, and coins excavated in 1934 and 1938. All the metal and miscellaneous finds of all four campaigns can be found in volume X.

No one has yet issued an exhaustive treatise on Greek graves and tomb-groups and Greek burial customs, taking into account the excavations of the last fifty years. Von Duhn issued an epoch-making first volume on *Italische Gräberkunde* but did not live to complete his second volume on Greek and Etruscan graves. So I have ventured, after the catalogue and description of the six hundred graves excavated, to publish four chapters of commentary, with parallels from other sites and some general conclusions, pointing out such differences as that cremation was not practiced at Corinth but at Olynthus cremation and inhumation burials were found side by side from the sixth to the fourth century B. C. and that at Corinth the flat type of tile prevailed whereas at Olynthus the gabled types of tiles over graves were greatly in the majority. This perhaps is a beginning, and I hope my prolegomena will encourage some scholar, especially after other complete cemeteries have been uncovered, to write such a history of Greek graves.

It is remarkable that no sculptured tombstones or sarcophagi or monuments were found in the cemeteries as in the Cerameicus at Athens, but evidently the Olynthians were too poor to have much sculpture⁵ even in their houses or public square, or else Philip carried it all away. Skulls and skeletons tell us nothing about the name or career of the dead man. Byron reflects on a skull he saw on the Athenian acropolis:

⁴ Cf. for example Mrs. Dohan, *Italic Tomb-Groups in the University Museum*. Philadelphia, 1942.

⁵ Cf. *Olynthus*, II, pp. 60-64, Figs. 162-165, 168, marble sculptured reliefs for gravestones perhaps but found in a house.

Remove yon skull from out the scattered heaps:
Is that a Temple where a God may dwell?
Why ev'n the Worm at last disdains her shattered cell!

Look on its broken arch, its ruined wall,
Its chambers desolate, and portals foul:
Yes, this was once Ambition's airy hall,
The Dome of Thought, the Palace of the Soul:
Behold through each lack-lustre, eyeless hole,
The gay recess of Wisdom and of Wit
And Passion's host, that never brooked control:
Can all Saint, Sage, or Sophist ever writ,
People this lonely tower, this tenement refit?

(Byron, *Childe Harold's Pilgrimage*,
Canto II, v-vi.)

Since there were no gravestones to tell the truth about the deceased, possibly there were wooden or painted markers which have disappeared. In one case (p. 133, n. 36) was found part of a stele with painted letters. The general lack of confusion and the fairly generous spacing of the graves, despite their large number, presuppose the use of tombstones or markers over most of the burials at least. But only two possible gravestones, smooth on one side and rough on the other, were actually found *in situ*, over their graves (nos. 240, 521, and p. 133, n. 37), and after careful thought I have concluded that these were not really gravestones, though that reproduced on Pl. LXI, 8 may have been. Possibly the Olynthians desired to be "without one gravestone left upon the earth"; but it seems strange not to be able to identify any of the skeletons found or to discover even who was buried in the beautiful painted chamber tomb, to say nothing of the forty-four persons buried together in one common grave.⁶

Behold this ruin! 'Twas a skull
Once of ethereal spirit full.
This narrow cell was Life's retreat,
This space was Thought's mysterious seat.
What beauteous visions filled this spot!
What dreams of pleasure long forgot!
Nor hope, nor joy, nor love, nor fear,
Have left one trace of record here.

(Anna Jane Vardill, "Lines to a Skull,"
in *European Magazine*, Nov. 1816.)

⁶ As we say, p. 164, they were probably war casualties, since a few weapons of war were found with them, as in the case of the thirteen Lacedaemonians buried in

Speak, thou awful vestige of the Earth's creation—
 Solitary fragment of remains organic!
 Tell the wondrous secrets of thy past existence
 —Speak, thou oldest primate!

(Bret Harte, *The Pliocene Skull*.)

But the same is true today when one walks through the nicely piled-up skulls and skeletons in the catacombs under Paris or near Rome. I have often wished that Hermes had been our guide to identify the skulls, as he did that of Helen for Menippus in the chill museum of Hades. Listen to Lucian who surely must have influenced Marlowe in *Dr. Faustus*:

Was this the face that launched a thousand ships?

I quote Howard Williams' translation (Bohn Classical Library, 1888) of Lucian, *Dialogues of the Dead*, No. 18, the Greek of which appears at the head of this preface:

- Menippus. And where are the *belles* and the *beaux*, Hermes? Be my *cicerone*, for I am a new arrival.
- Hermes. I have no leisure, Menippus: look carefully, however, at that spot, to the right, where are Hyacinthus, and Narcissus, and Nireus, and Achilles, and Tyro, and Helen, and Leda, and in fine all the beauties of old?
- Menippus. I see only bones and skulls, bare of flesh, for the most part all alike.
- Hermes. Yet these are the bones that all the poets rave about, which you appear to condemn.
- Menippus. However, point me out Helen: for I could not distinguish *her*.
- Hermes. That skull is Helen.
- Menippus. Then, on account of this, those thousand ships were equipped from the whole of Hellas, and so many Hellenes and foreigners fell, and so many cities have become ruins!
- Hermes. But you never saw the lady alive, Menippus; for even you would have acknowledged it was not a matter to excite indignation that they:
- "For such a woman many a year choose bitter woe to suffer."
- For, in fact, if one looks at withered flowers, when they have lost their brilliant color, it is plain that they will seem to him to have lost all their beauty. While, however, they are in bloom and retain their color, they are very beautiful.
- Menippus. 'Tis this, however, I wonder at, Hermes,—that the Achaeans did not know they were suffering for a thing so shortlived and quickly fading.

the Cerameicus, *A.J.A.*, XXXVI, 1932, pp. 290-292; *Arch. Anz.*, XLV, 1930, pp. 90, 91, 102.

In digging up the skulls, an impious task,⁷ I was often reminded of Shakespeare's *Hamlet*, Act V, scene 1. When I turned up a skull I thought, "That skull had a tongue in it, and could sing once. . . . It might be the pate of a politician . . . or of a courtier. . . ." Or, when we turned up another, "Why may not that be the skull of a lawyer? . . . Why does he suffer this rude knave now to knock him about the sconce with a dirty shovel and will not tell him of his action of battery? Hum! This fellow might be in's time a great buyer of land . . . his fine pate full of fine dirt . . . Whose grave's this, sirrah? Mine, sir. O, a pit of clay for to be made for such a guest is meet." Often we found almost no traces of the skeleton as it had rotted away in the moist Macedonian mud, and I thought "How long will a man lie i' the earth ere he rot . . . a' will last some eight year or nine year; a tanner will last you nine year . . . his hide is so tanned with his trade that a' will keep out water a great while; and your water is a sore decayer of your whoreson dead body. Here's a skull now: this skull has lain in the earth three and twenty years . . . Yorick's skull, the king's jester." Or one is reminded of Gray's *Elegy in a Country Churchyard*:

Some mute inglorious Milton here may rest,
Some Cromwell guiltless of his country's blood.

Perhaps we should be surprised that not more skeletons or skulls have perished and that so many have lasted more than 2,300 years. In some cases, where the bodies were entirely disintegrated, one would almost think that the dead had been dug up, as at Easter time in modern Olynthus when they are placed in the church, and that they had not been replaced as is the modern custom:

No useless coffin enclos'd his breast
Nor in sheet nor in shroud we wound him.

(Charles Wolfe, *The Burial of Sir John Moore*.)

In some cases, where no skeleton was found (as for example in grave no. 521) perhaps the grave was a cenotaph: cf. Thuc. II,

⁷ Cf. scholium to Euripides, *Medea*, 1381, ἀσεβὲς γὰρ τὸ ἀνορύττειν τάφους, or the inscription on Shakespeare's grave:

Good frend for Iesus sake forbear,
To digg the dust enclosed heare!
Blest be ^e y man ^t y spares thes stones,
And curst be he ^t y moves my bones.

34; Chariton, *De Chaerea et Callirrhoe*, IV, 1, 12; Callimachus, *Epig.* 18:

The surges toss his breathless fame
An empty tomb preserves his name.

Cenotaphs were erected in honor of those who died in battle or were drowned at sea. But at Olynthus we cannot be sure that the lack of a skeleton means a cenotaph, as a skeleton in Macedonian moisture can with ease completely disappear. Many of the Olynthians, however, were buried extended at full length, in wooden coffins (now gone), with six feet of earth, and their skeletons and skulls have been well preserved. Generally the corpse was covered with tiles* (see Pl. LXIII for different types) and only in two cases (both in the East Cemetery) was a substantial stone sarcophagus found, and then with no terracotta plaques attached and no sculpture. In the case of other Olynthians "one small grave is all he gets." Often the Olynthian was burned and his bones put in an amphora or other vase (*enchytrismos*). But it would appear that sometimes corpses were buried with no covering at all. All the different kinds of burial and of offerings are discussed in the commentary, and it would be idle to try to summarize the conclusions in this preface.

In studying the graves I have been much helped by my former student, Dr. Frank P. Albright, who has gone over the inventory cards and excavation notebooks and has collected much material for me. He also assisted, as did those mentioned above, in the excavation of the graves, though I personally supervised all the work and watched the opening and clearing of all the important graves. I am indebted to all the other members of the staff for assistance in many ways; to Mr. Euripides Melanides for help in taking photographs on glass plates in addition to those on film of

* Cf. F. P. Graves, *The Burial Customs of the Ancient Greeks*, Master of Arts thesis at Columbia University, published by Roche and Hawkins, Brooklyn, N. Y., 1891, p. 52: "One of the oldest kinds of coffins was that in which Dionysus, according to the fable, laid away whatever was mortal of the beautiful Ariadne. That rude contrivance was composed of three flat plates of clay, forming a kind of triangular prism (Stackelberg, *Die Gräber der Hellenen*, Berlin, 1837, Pl. 7, no. 3), so that this casket of the wine god's wife must have been as picturesque and shapely as a piece of sewer-pipe."

which I took hundreds as the work progressed and several of which are here reproduced. In Baltimore I have a file of cards, one for each grave, with detailed descriptions and all information and one or more negatives. For drawings of the Painted Chamber Tomb (Pls. LIII-LVI) I am grateful to our architect, Mr. Travlos, who has become so expert in the excavations in the Athenian agora, and to Dr. Frank P. Albright for drawings of the different types of vases used in the *enchytrismoi* (Pls. LIX, LX), for the reconstruction plan in Pl. LXIV and the plan in Pl. LXV. For the detailed plan of Riverside Cemetery (Pl. LXIII) I am indebted to Dr. Saul Weinberg, Dr. Frank Albright, and Dr. Sarah E. Freeman who has also helped on the concordances and in other ways. It was fortunate that an anthropologist could be present in 1938 and give us information about the skulls and skeletons. I am much indebted to Mr. J. Lawrence Angel, now of the Department of Anthropology at the University of California, for the detailed report printed as an appendix, with five tables and four plates. I am grateful to my students, Miss Annarie J. Peters, Miss Hazel Palmer and Mr. Robert W. Caldwell for assistance in compiling the index.

The expenses of the volume I have contributed myself. Finally, I thank again the J. H. Furst Company for their patience and for their painstaking and artistic production.

DAVID M. ROBINSON.

*Baltimore, Md.,
May 1, 1942.*

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- XLVII. Graves 395, 397, 398, 400, 402, 404, 407, 411, 413, 414.
- XLVIII. Graves 416, 417, 418, 426, 432, 433, 437, 459, 463.
- XLIX. Graves 477, 482, 483, 484, 485, 491, 505, 517, 535.
- L. Graves 512, 515, 516, 519, 520, 524, 525, 566.
- LI. Graves 569, 577, 578, 588.
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- LIII. Section and Plan of Painted Chamber Tomb.
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- LIX. Drawings of different Types of Amphoras used in the *Enchytrismoi*.
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- LXVII. Plan of Excavations of East Cemetery (1934).
- LXVIII. Upper: 1 Ol. (Olynthus), Grave 407. Male. To illustrate Type A, or short-faced Atlanto-Mediterranean or Megalithic.
- Lower: 9 Ol. (Olynthus), Grave 485. Male. Type A.
- LXIX. Upper: 4 Ol. (Olynthus), Grave 466. Male. Dominantly Type C, or Alpine skull, with mixed Alpine vault tendencies.
- Lower: 6 Ol. (Olynthus), Grave 459. Male. Type C or Alpine, showing rugged extreme of type.
- LXX. Upper: 3 Ol. (Olynthus), Grave 507. Female. Probably Type D, or "Hallstatt Nordic."
- Lower: 1 Ser. (Servia), Grave under House E. N. 5, excavated by Heurtley. Male? Type D or Dinaric-Mediterranean, gracile extreme. Second Neolithic Period, ca. 2900 B. C.
- LXXI. Upper Left: Modern Male Olynthian, 35 years old.
- Middle: Modern Male Olynthian, over 30 years old.
- Right: Male Chalcidian from Hagios Nikolaos, 38 years old.
- Lower: N. 13683 (Peabody Museum), Magdalenaburg, Carniola. Male. Alpine Type, some Mixed Alpine details. Hallstatt-La Tène.

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¹ The abbreviations of periodicals, for the most part, follow the system formerly employed in the *American Journal of Archaeology* (see *A.J.A.*, XXIX, 1925, pp. 115 f.) and in the previous volumes on Olynthus.

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PART I
THE GRAVES OF OLYNTHUS

RIVERSIDE CEMETERY¹

Grave 1. Pl. I. Flat tile covering, two tiles long. Tiles much broken and pieces missing. L. 1.51 m. W. 0.50 m. Depth to tiles 0.30 m. Orientation north-east to south-west. No skeletal remains or grave furniture were found.

Grave 2. Pl. I. Gabled tile covering, two tiles long. The west end of the tiles was almost entirely missing. Part of a tile was placed horizontally at the east end. Another tile was laid, convex side up, over the skeleton. L. 1.28 m. W. 0.62 m. Depth to tiles 0.40 m. The skeleton of an adult lay supine, arms at the sides, legs extended and missing from a little below the pelvis. The head was at the east end of the grave. The grave was partly over the side of grave 3 and therefore later in date. Late fifth or early fourth century B. C.

Grave 3. Pl. I. Flat tile covering, two tiles long. Tiles broken and caved in and much of the west end missing. L. preserved 1.49 m. W. 0.49 m. Depth to tiles 0.70 m. The skeleton of an adult lay supine, arms at the sides, legs extended, but missing from the middle of the thighs. The head was at the east. Between the thighs was a small one-handled bowl, Inv. 34. P. V-7. It is a rough local ware similar to vases found in graves 37, 364 and 568, classed with Pre-Persian ware (cf. *Olynthus*, V, p. 29, **P 35**), but it may

¹ For the location of the graves see Plates LXIII-LXVII. For the inventory numbers and the years in which the graves were found see the two concordances on pp. 241 ff.

The dimensions given are generally the over-all dimensions of the grave as it was excavated and are sometimes far from the original size of the grave because of the shifting and breaking of the covers. The depth given is measured from the present surface to the bottom of the grave, unless otherwise specified. Where no date is given, it is uncertain. None are later than 348 B. C. When a number on the plates is followed by *a*, the exterior of the grave is illustrated; if followed by *b*, the interior. A capital *A* refers to a separate number and a different grave.

have been made in the fifth or fourth century. Fifth or fourth century B. C.

Grave 4. Pl. I. Flat tile covering, two tiles long. Only small pieces of the tile remained. L. preserved 0.92 m. W. 0.53 m. Depth to tiles 0.40 m. The skeleton (b) of an adult, quite well preserved to the thighs, was lying supine, arms at the sides, legs extended, with the head at the east. Outside of the left forearm was a squat lecythus, Inv. 34. P. VI-32, and to the left and right of the pelvis were two others, Inv. 34. P. VI-33 and 34. P. VI-34. At the left shoulder was a bronze finger-ring, *Olynthus*, X, no. 468. Middle of fourth century B. C.

Grave 5. Pl. II. Gable tile covering, one tile long. Tiles broken and partly caved in. L. 0.96 m. W. 0.49 m. Depth to tiles 0.25 m. Orientation east and west. Only the head and the legs were preserved of a child's skeleton lying supine, with the legs extended and the head at the east end. At the right center of the body were a terracotta spoon, Inv. 34.ms.21, and a terracotta figurine, Inv. 34. T. 174, probably from the same mould as *Olynthus*, IV, 385. First half of the fourth century B. C.

Grave 6. Pl. II. Gabled tile covering, two tiles long, with half tiles at each end. Two tiles were laid with the convex side up over the skeleton. L. 1.72 m. W. 0.52 m. Depth to tiles 0.90 m. The skeleton of an adult lay supine, arms at the sides, legs extended, with the head at the east. The legs were fairly well preserved but the upper part was almost entirely gone where the grave had caved in, allowing the water to seep through. At the left shoulder was a black-glazed scyphus, Inv. 34. P. I-16, of the first half of the fifth century. Fifth century B. C.

Grave 7. Pl. II. Unprotected burial of an adult lying supine, arms at the sides, legs extended, with the head at the east. L. preserved 1.09 m. Depth 0.60 m. A bronze Chalcidic coin with tripod, Inv. 34. C. 1355, *Olynthus*, IX, p. 222, no. 9; p. 385, was found about 0.10 m. higher than the head, slightly beyond the left shoulder, where it was, without a doubt, thrown as the grave was being filled. Between the feet was a rough oenochoe of local ware, Inv. 34. P. 140. Outside of the left thigh was a scyphus, Inv.

34. P. I-14. To the left of the pelvis were a lagynus, Inv. 34. P. IX-7, and two plain saucers. Between the left arm and the ribs was a squat lecythus, Inv. 34. P. VI-27. About 360 B. C.

Grave 8. *Enchytrismos*. An amphora, Dm. ca. 0.38 m., was standing erect at a depth of 0.30 m. The top was caved in and large fractions were missing. No skeletal remains or furniture were found.

Grave 9. Pls. II and III. Flat tile covering, one tile long. L. 1.02 m. W. 0.51 m. Depth 1.10 m. The tile was slightly caved in at the center. It covered the skeleton (b) of an adult or adolescent nearly to the knees, the lower part of the legs being uncovered and now disintegrated. The skeleton lay supine, arms at the sides, legs extended, with the head at the east-south-east. On the right elbow was a lamp of the middle of the fourth century (late Group 7), Inv. 34. L. 122. Middle of the fourth century B. C.

Grave 10. Pls. III and LIX, 6. *Enchytrismos*. Amphora, L. 0.45 m., lying on its side with the mouth to the east. The mouth was closed by a small stone. The upper part of the amphora was very much destroyed. No skeletal remains or furniture were found. Fifth century B. C.

Grave 11. Pl. III. Gabled tile covering, two tiles long. The tiles had been shifted to the north by the settling of the fill. Under the gable another tile was laid, convex side up, over the skeleton. L. 1.48 m. W. 0.68 m. Depth to tiles 0.60 m. The skeleton of an adult, well preserved, lay supine, arms at the sides, legs extended, head at the east and turned to the left, facing south. L. of skeleton (b) to ankles 1.47 m. A fragmentary iron strigil, *Olynthus*, X, no. 568, lay with the blade across the right side of the pelvis and the handle between the thighs.

Grave 12. Unprotected burial of an adult with only the middle part of the skeleton preserved. It lay supine, right arm at the side, left hand between the thighs, and the legs probably extended. The head was at the east. Depth 0.60 m. Outside of the right thigh was a small pitcher, Inv. 34. P. 122. On the third finger of the left hand was a bronze ring, *Olynthus*, X, no. 498. At the right shoulder

was a plain bow fibula, *ibid.*, no. 357. Under the right forearm was a long bronze unidentified instrument, much broken. End of fifth or early fourth century B. C.

Grave 13. Pls. III and LX, 27. *Enchytrismos*. Amphora, L. 0.72 m., Dm. 0.48 m., lying on its side with the mouth to the south-west. Most of the top part was missing. The side of the amphora was probably destroyed in the digging of grave 12, which was directly over it. No skeletal remains or grave furniture were found. Late fifth or early fourth century, before 370 B. C.

Grave 14. Pl. IV. Gabled tile covering, two tiles long, with part of a tile at the east end and two tiles laid, convex side up, over the skeleton. L. 2.00 m. W. 0.50 m. Depth to tiles 1.10 m. The west end was partly under grave 15. The skeleton of an adult, badly smashed by the tiles, lay supine, arms at the sides, legs extended, with the head at the east. L. of skeleton 1.60 m. By the right forearm was a squat lecythus, Inv. 34. P. 251. Last quarter of the fifth century B. C.

Grave 15. Pl. IV. Gabled tile covering, two tiles long. The tiles were shifted and pieces were missing. The upper end was partly over grave 14. The lower end was partly cut away when grave 18 was dug. L. 1.50 m. W. 0.47 m. Depth 0.90 m. The skeleton of an adult lay supine, arms at the sides, legs extended, with the head at the north-east. No grave furniture was found. Late fifth or early fourth century B. C.

Grave 16. Pl. IV. *Enchytrismos*. Amphora, L. 0.75 m., Dm. 0.32 m., lay on its side with the mouth to the east. Rather well preserved, only part of the upper side missing. Depth to amphora 0.50 m. No skeletal remains were found. In the amphora was a squat lecythus, Inv. 34. P. VIa-11. Second quarter of the fourth century B. C.

Grave 17. Pl. IV. Gabled tile covering, one tile long. The tiles were pushed together at the bottom and tilted to the north-west. L. 1.02 m. H. 0.36 m. Depth 0.66 m. No skeletal remains or grave furniture were found. Orientation north-east by south-west.

Grave 18. Pl. V. Gabled tile covering, two tiles long, with

part of a tile at the east end. L. 1.64 m. W. 0.38 m. Depth 1.00 m. Only fragments remained of the skeleton of an adult lying supine, right arm at the side, left arm missing, legs extended, with the head at the east. No grave furniture was found. Fourth century B. C.

Grave 19. Pl. V. Gabled tile covering, two tiles long, with parts of tiles at both ends. The tiles were broken but fairly complete. L. 1.83 m. W. 0.52 m. Depth 1.30 m. The skeleton of an adult lay supine, arms at the sides, legs extended, with the head at the east. The skeleton was not well preserved, especially where the grave was not filled with earth. In the mouth was a bronze coin, Chalcidic lyre type, Inv. 34. C. 1536, *Olynthus*, IX, p. 222, no. 6. On a finger of the left hand was an iron ring (fragmentary, not inventoried). Fourth century B. C.

Grave 20. Pls. V and LIX, 21. *Enchytrismos*. Amphora, L. about 0.53 m., Dm. 0.35 m., lying on its side with the mouth to the south-east. Some of the upper side was missing. The break at the shoulder to admit the corpse was clearly evident. Depth to the amphora 0.60 m. No skeletal remains or furniture were found. Fourth century B. C.

Grave 21. Pl. V. Gabled tile covering, two tiles long. L. 1.59 m. W. 0.49 m. Depth to tiles 1.10 m. The skeleton of an adult lay supine, right arm at the side, left probably with the hand on the left thigh, legs extended, head at the east. The skeleton was rather well preserved except the head, which was almost entirely disintegrated. Between the thighs was a bronze strigil, which was probably held in the left hand, *Olynthus*, X, no. 560.

Grave 22. Pl. V. The grave consisted of a roof cover-tile laid with the concave side up, on which the infant was placed, and covered with an inverted basin of coarse red local clay. The basin had a ring base, rounded body and two circular handles below a flat rim. It measured 0.40 m. in diameter and 0.14 m. in height. Depth to basin 1.25 m. Only a few small pieces of bone were found in the tile, and it is not possible to tell in which direction the head was laid. The tile extended east and west. No grave furniture was found.

Grave 23. Pl. VI. Gabled tile covering, two tiles long. The tiles were doubled on each side, eight tiles being used instead of the usual four. L. 1.75 m. W. 0.46 m. Depth 1.12 m. The skeleton (b) of an adult in good state of preservation lay, head at the east, nearly on its right side, legs extended, left arm stretched out at the side and the right arm bent at the elbow, with the lower arm across the lower ribs. L. of skeleton 1.50 m. No grave furniture was found.

Grave 24. Pls. VI and LIX, 11. *Enchytrismos*. Amphora, L. 0.56 m., Dm. 0.44 m., lying on its side with the mouth to the north-east. Depth 1.70 m. The amphora was partly under grave 25 and the upper part was destroyed when the latter grave was dug. No skeletal remains or grave furniture were found. Late fifth or early fourth century B. C.

Grave 25. Pl. VI. Gabled tile covering, two tiles long, with parts of tiles at both ends. There were also two tiles, concave side up, under the skeleton and two, concave side down, over it. L. 1.75 m. W. 0.55 m. Depth to the tiles 1.40 m. The skeleton of an adult lay supine with the head at the north-east. The legs and arms were probably extended. L. of skeleton 1.60 m. No grave furniture was found.

Grave 26. Pl. VI. Gabled tile covering, two tiles long. The tiles were much smaller than the usual ones. The whole grave was only 0.90 m. long. The tiles were found standing erect but crowded together at the bottom. Depth 0.60 m. The skeleton (b) of a child lay supine, arms at the sides, legs extended, with the head at the west. The bones were fragmentary. In the mouth were two bronze coins, one, Inv. 34. C. 1370, of Sciathus, *Olynthus*, IX, p. 243, no. 1, Pl. XXXII, 18; and the other, Inv. 34. C. 1429, of Thebes, *Olynthus*, IX, p. 244, no. 2, Pl. XXXII, 20. Three small rings were found along the body where they probably had been attached to the clothes. First half of the fourth century B. C.

Grave 27. Pl. VIII. Gabled tile covering, one tile long. The tiles were very much broken and disarranged. L. 1.30 m. W. 0.47 m. Depth 1.35 m. The skeleton of a child lay with the head

projecting beyond the east end of the grave. The bones were very much disintegrated. In the mouth was a bronze coin of the Chalcidians, Inv. 34. C. 1196, *Olynthus*, IX, p. 222, no. 6. 397 to 348 B. C.

Grave 28. Pls. VII and LIX, 14. *Enchytrismos*. Amphora lying on its side with the mouth to the south-west. L. 0.59 m. Dm. 0.42 m. Depth 1.10 m. The amphora was not entirely filled with earth and was only slightly broken. It showed clearly that the shoulder was broken off to admit the corpse. No skeletal remains or grave furniture were found. Late fifth or early fourth century B. C.

Grave 29. Pl. VII. *Enchytrismos*. Amphora lying on its side, with the mouth to the east. The amphora, quite broken and much missing, was of the usual kind except that it had a band of three raised ribs around the shoulder. L. ca. 0.88 m. Depth to amphora 0.80 m. The head of grave 29 A was directly over it. In the amphora were traces of small bones but no grave furniture. Second half of the fifth or first quarter of the fourth century B. C.

Grave 29 A. Pl. VII. Unprotected burial of an adult lying supine with the head at the south, almost directly over grave 29. Only the skull and a few traces of the remainder of the skeleton were found. No grave furniture was found. Late fifth or fourth century B. C.

Grave 30. Pls. VII and LIX, 21. *Enchytrismos*. Amphora lying with the mouth to the north-east. L. 0.59 m. Dm. 0.36 m. Depth 1.50 m. The grave is later than grave 55, for a corner of the latter was cut away for the placing of this one, and earlier than grave 31, which was partly over it. A few small bone fragments were found in the amphora but no furniture. About 390 to 360 B. C.

Grave 31. Pl. VII. Gabled tile covering, one tile long, with parts of tiles at both ends. The grave was somewhat compressed but otherwise in better condition than the average. L. 1.05 m. W. 0.51 m. Depth 1.50 m. Orientation east and west. No trace of a skeleton was found, but the deceased had been a child, with the head probably at the east end of the grave, judging from the

position of the furniture. The grave was partly over grave 30. Near the east end of the grave were a miniature Corinthian scyphus, Inv. 34. P. XVa-8; and an earring, *Olynthus*, X, no. 282. At the left center of the grave was a one-handled cup, Inv. 34. P. 295 and at the right center a bone pendant, Inv. 34. ms. 33. Between these, and a little to the east of them, was a necklace of green and yellow beads. Two meters east of this grave was found part of a grave stele with letters painted in red, the only inscription so far found in the cemetery. Cf. *Trans. Amer. Phil. Ass.*, LXV, 1934, p. 133, no. 10. Second quarter of fourth century B. C.

Grave 32. Gabled tile covering, one tile long, with part of a tile at the east-north-east end. L. 0.90 m. W. 0.50 m. Depth to tiles 0.30 m. Orientation east-north-east and west-south-west. No skeletal remains or grave furniture were found.

Grave 33. Pl. VII. Gabled tile covering, two tiles long, with two tiles placed, concave side up, under the corpse and two, concave side down, over it. Cover tiles were placed on the ridge. The tiles were broken but the grave retained its shape. L. 1.75 m. W. 0.65 m. Depth 1.15 m. The skeleton (b) of an adult lay supine, arms at the sides, legs extended, with the head at the east. The skeleton was in a fair state of preservation except the head, which had entirely disintegrated. The tiles over the head had not caved in and the grave was not entirely filled with earth. Thus the air and water acted readily on the skull, causing the disintegration. Over the right breast was a small pitcher, Inv. 34. P. 147, similar to the one in grave 12. Between the thighs were two squat lecythi, Inv. 34. P. VI-30 and 34. P. VI-39. Over the right thigh was a bronze strigil in fragmentary condition (not inventoried), probably held in the right hand. Some fragments were found on the outside of the left thigh, which probably were from another strigil. Middle of the fourth century B. C.

Grave 34. Pl. VIII. Unprotected burial of an adult lying supine, arms at the sides, legs extended, with the head at the east-south-east. The skeleton was well preserved except the head and the left forearm, which were entirely gone. It is hard to see why certain parts should be so completely missing, but the placing

of grave 35 over it may have caused seepage of water at just these points. No grave furniture was found. Depth 2.10 m. Not later than the beginning of the fourth century B. C.

Grave 35. Pl. VIII. Gabled tile covering, two tiles long. L. 1.60 m. W. 0.56 m. Depth 1.30 m., about 0.80 m. above grave 34. The skeleton (b) of an adult lay supine, arms at the sides, legs extended, with the head at the east-north-east. The bones were well preserved. The head was bent forward upon the chest. L. of skeleton 1.52 m. No grave furniture was found.

Grave 36. Unprotected burial of a child of which only traces remained. The head was at the north-east. It was at the foot of grave 34, at a depth of 1.50 m., and was later in date. At the middle of the grave were the following objects: a small pitcher, Inv. 34. P. 170; three squat lecythi, Inv. 34. P. VI-28, 34. P. VIa-5 and 34. P. 154; a cantharus, Inv. 34. P. 186; a pyxis, Inv. 34. P. XII-3; a one-handled bowl, Inv. 34. P. III-12; two spindle-whorls, Inv. 34. ms. 38 and Inv. 34. ms. 39; and a small plain ring. First quarter of fourth century B. C.

Grave 37. Pl. VIII. Gabled tile covering, two tiles long, with part of a tile at the head end. Two extra tiles were placed against the south side. L. 1.79 m. W. 0.46 m. Depth 1.30 m. Over the head of the skeleton was a bowl of Olynthian undecorated ware, Inv. 34. P. 237. The skeleton (b) of an adult lay supine, arms at the sides with the hands on the pelvis, legs extended but knees somewhat flexed to the right, and the head, which was at the east end of the grave, was shifted to the left. Except the bowl over the face no furniture was found. Probably late fifth century B. C.

Grave 38. Pl. IX. Gabled tile covering, one tile long, with large stones at both ends. L. 1.10 m. W. 0.39 m. Depth to tiles 1.10 m. The skeleton of a child lay supine, arms at the sides, legs extended, with the head at the east. L. of skeleton 0.80 m. No grave furniture was found.

Grave 39. Pl. IX (at top). Gabled tile covering, one tile long, with part of a tile at the east end. L. 0.88 m. W. 0.30 m. Depth 1.46 m. The skeleton of a child lay supine, arms at the sides, legs

extended, with the head at the east. L. 0.78 m. It was better preserved than is usually the case for small children. No grave furniture was found.

Grave 40. Gabled tile covering, one tile long, with part of a tile at the east end. The tiles were badly broken and much of them was missing. L. 0.88 m. Depth to tiles 0.60 m. A few scattered traces were found of the skeleton of a child, but it was not certain in which direction the head lay. At the east end of the grave was a two-handled bowl, Inv. 34. P. 105. Late fifth or early fourth century B. C.

Grave 41. Pls. IX and LIX, 24. *Enchytrismos*. Amphora lying on its side with the mouth to the south-east. L. 0.59 m. Dm. 0.39 m. Depth 1.00 m. Clear break at the shoulder to admit the corpse. One handle and a piece of the body missing. A few bones of a small child were found in the amphora. Fourth century B. C.

Grave 42. Pl. IX. Gabled tile covering, one tile long, with part of a tile at the north-east end. L. 0.95 m. W. 0.52 m. Depth to tiles 0.90 m. The tiles covered only the upper part of the body of an adult lying supine, arms at the sides, legs extended, with the head at the north-east. Only fragments remained of the head, which must have projected slightly beyond the end of the tiles, and the legs were missing from the knees down, where they projected beyond the tiles. L. preserved 1.10 m. No grave furniture was found.

Grave 43. Pl. IX. Gabled tile covering, one tile long, with parts of tiles at both ends and one tile placed, concave side up, under the corpse. The tiles were very short. L. of grave 0.61 m. W. 0.35 m. Depth 0.95 m. Very few traces of the skeleton of a child remained, which evidently lay supine, with the head at the south-south-west. No grave furniture was found.

Grave 44. Gabled tile covering, two tiles long. The east end stood intact, but the west end was badly smashed in. L. 1.58 m. W. 0.55 m. Depth 1.85 m. The fragmentary skeleton of an adult lay supine, with the head at the east end. The head was covered by the bottom of a coarse amphora. In the mouth were a bronze

Bottiaean coin, Inv. 34. C. 1207, *Olynthus*, IX, p. 224, no. 16; a plain bronze ring, *Olynthus*, X, no. 922; and a yellow bead. Between the legs was a black-glazed bowl with cover (not inventoried). 397 to 348 B. C.

Grave 45. Pl. IX. Flat tile covering, two tiles long. One of the tiles was broken in two and half was placed at each end of the other tile. L. 1.90 m. W. 0.50 m. Depth 0.90 m. The grave was partly under grave 46 and grave 47. The skeleton of an adult lay supine, arms at the sides, legs extended, with the head at the east-south-east. Only the legs and part of the arms remained. No grave furniture was found. Not later than 375 B. C.

Grave 46. Pl. IX. Flat tile covering, one tile long, with part of another tile added to one end. L. 1.24 m. W. 0.51 m. Depth 0.80 m. The skeleton of a child lay supine, arms at the sides, legs extended, with the head at the south-south-east. Only the arms and legs remained. L. of skeleton about 1.06 m. No grave furniture was found. The grave was over grave 45. Middle of fourth century B. C.

Grave 47. Pl. X. Flat tile covering, one tile long. The north-west end was partly cut away to make room for grave 46 and was partly over grave 45 and under grave 48. L. 1.01 m. W. 0.55 m. Depth 0.80 m. A few scant traces of the skeleton of a child remained with the head at the south-east. At the right foot was a group of two feeding bottles, Inv. 34. P. VII-2 and 34. P. VII-3, and a squat lecythus, Inv. 34. P. VI-21. Between the legs was a two-handled bowl with cover, Inv. 34. P. 104. At the right side, by the arm, was a bronze bracelet, *Olynthus*, X, no. 237. About 375 to 360 B. C.

Grave 48. Pls. X and LIX, 21. *Enchytrismos*. The bottom part of a plain coarse vessel, probably an amphora, was laid on its side with the foot toward the east and downward. The top from the shoulder up was missing and was replaced by a large flat stone. A large stone at either side kept the vessel in place. L. of vase remaining 0.57 m. Dm. 0.67 m. Depth to the vessel 0.50 m. It was over grave 47. No skeletal remains or furniture were found

in the vessel but a small saucer was found under the north side of it. Middle of fourth century B. C.

Grave 49. Pls. X and LIX, 16. *Enchytrismos*. Amphora lying on its side with the mouth to the north, most of the foot end missing. Depth to amphora 0.80 m. No skeletal remains or grave furniture were found. Late fifth or fourth century B. C.

Grave 50. Gabled tile covering, one tile long. Only a few traces of the tiles remained along the edges, the remainder having disintegrated. Depth 0.50 m. A few small bones remained of the skeleton of a child extending north-east and south-west, but it is not certain in which direction the head was. At the middle of the grave was a one-handled bowl, Inv. 34. P. III-11. In it was a small bowl of greenish buff clay (not inventoried) and a small, plain black pyxis, Inv. 34. P. XII-1. Early fourth century B. C.

Grave 51. *Enchytrismos*. Only fragments remained of an amphora lying with the mouth to the south. Depth 0.60 m. A few bones of a small child were found. No grave furniture was found.

Grave 51 A. Unprotected burial of an adult. About 0.30 m. below grave 51 was a large, well preserved skull of an adult. No other skeletal remains were found. The orientation of the grave is uncertain.

Grave 52. Pl. X. Gabled tile covering, two tiles long, with the tiles doubled on both sides and large stones at the east end. The stones had been pushed in by the pressure of the earth and had crushed the skull of the skeleton. The tiles were cracked but standing to their original height. The skeleton, which was that of an adult, was mostly disintegrated except for the legs. It was lying supine, with the head at the east. L. of grave 1.67 m. W. 0.46 m. Depth 1.75 m. Among the fragments of the head were three bronze coins of the Chalcidians, Inv. 34. C. 786-788, *Olynthus*, IX, p. 222, no. 6. 397-348 B. C.

Grave 53. Pl. X. Gabled tile covering, one tile long, with parts of tiles at both ends, a tile laid, convex side up, over the corpse, and cover tiles on the ridge. L. 1.35 m. W. 0.50 m. Depth 1.00 m. The skeleton of a child, L. 1.14 m., lay supine, with the head at the east-north-east. No grave furniture was found.

Grave 54. Pls. X and XI. Gabled tile covering, two tiles long, with a double layer of tiles on both sides, cover tiles on the ridge, and two tiles laid, convex side up, over the corpse. The tiles were quite broken. L. 1.42 m. W. 0.54 m. Depth 1.15 m. The skeleton (b) of an adult woman lay supine, arms at the sides, legs extended, with the head at the east. L. to ankles 1.31 m. Outside of each knee was a black-glazed cantharus, Inv. 34. P. 188 and 34. P. 187. Middle of fourth century B. C.

Grave 55. Pl. XI. Gabled tile covering, one tile long, with a tile, concave side up, under the corpse. The tiles at the head end were partly cut away when grave 57 was dug, and those at the foot end when grave 30 was dug. L. 0.99 m. W. 0.53 m. Depth to tiles 1.00 m. The skeleton of a small adult or adolescent lay supine, arms at the sides, legs extended, with the head at the north-east. The feet, which had extended beyond the tiles, were missing. Just outside of the chin were three bronze coins, one of the Bottiaeans, Inv. 34. C. 1075, *Olynthus*, IX, p. 225, no. 18; two of the Chalcidians, Inv. 34. C. 1078 and 34. C. 1079, *ibid.*, p. 222, no. 6. First quarter of fourth century B. C.

Grave 56. Pl. XI. Flat tile covering, two tiles long. The tiles were broken and the east one caved in at the center with the edges standing up. L. 1.65 m. W. 0.48 m. Depth to tiles 0.80 m. The grave was over grave 57. The skeleton (b) of an adult lay supine, arms at the sides, legs extended, with the head at the east. L. to knees 1.48 m. In the mouth were three bronze coins of the Chalcidians, Inv. 34. C. 976, 977, 979, *Olynthus*, IX, p. 222, no. 6; and one of the Bottiaeans, Inv. 34. C. 978, *Olynthus*, IX, p. 224, no. 16. At the right elbow was a squat lecythus, Inv. 34. P. VI-22. Between the knees were the neck and handles of a plain coarse amphora. Middle of fourth century B. C.

Grave 57. Pl. XII. Unprotected burial of an adult lying supine, arms at the sides, legs extended, with the head at the east-south-east. It was under grave 56, and the feet projected into grave 55. L. 1.47 m. as preserved to a few centimeters below the knees. Depth about 1.30 m. No grave furniture was found. About 390 to 360 B. C.

Grave 58. Pl. XII. Gabled tile covering, one tile long. The north side had collapsed under the pressure of the earth before it broke and the south side remained standing, so that when excavated the south tile was almost in its original position but the north tile lay with the concave face down over the skeleton. L. 1.10 m. W. 0.50 m. Depth 0.90 m. Only traces remained of the skeleton of a child lying supine, legs extended, with the head at the east. Between the legs was a one-handled cup, Inv. 34. P. 138. First quarter of the fourth century B. C.

Grave 59. Pl. XI. Cremation. In a bed of charred matter and burnt earth were fragments of calcined bones, apparently of a youth with the head at the west and knees bent. In the center were fragments of a badly burnt coarse amphora in which a few ashes but no bones were found. Depth to amphora 0.50 m. No grave furniture was found.

Grave 60. Pl. XII. The grave consisted of a jumble of bones and broken amphorae, the bones mainly on top. This may be several unprotected burials over several *enchytrismoi*, but no stratification or direction of skeletons could be determined. Among the fragments were two small lecythi, one Inv. 31. P. 641 (not published); and the other *Olynthus*, V, no. 497; and a terracotta figurine, Inv. 31. T. 330. The lecythi date the grave in the second quarter of the fourth century B. C.

Grave 61. *Enchytrismos*. Amphora lying on its side with the mouth to the east-north-east. It was very much disintegrated. No grave furniture or skeletal remains were found.

Grave 62. *Enchytrismos*. Amphora lying on its side with the mouth to the south. The whole top part was missing. Lying upside down in the amphora was a small one-handled dish (not inventoried).

Grave 63. *Enchytrismos*. Amphora standing erect with the neck and handles missing. No skeletal remains or grave furniture were found.

Grave 64. Pls. XII and LIX, 6. *Enchytrismos*. A rather squat amphora lying on its side with the mouth to the north-east. L.

0.59 m. Dm. 0.44 m. The shoulder was broken nearer the neck than usual. No skeletal remains or grave furniture were found. Fifth century B. C.

Grave 65. Pls. XII and LX, 28. *Enchytrismos*. Amphora lying on its side with the mouth to the west. Cracked but well preserved, with a clear break at the shoulder. L. 0.65 m. Dm. *ca.*

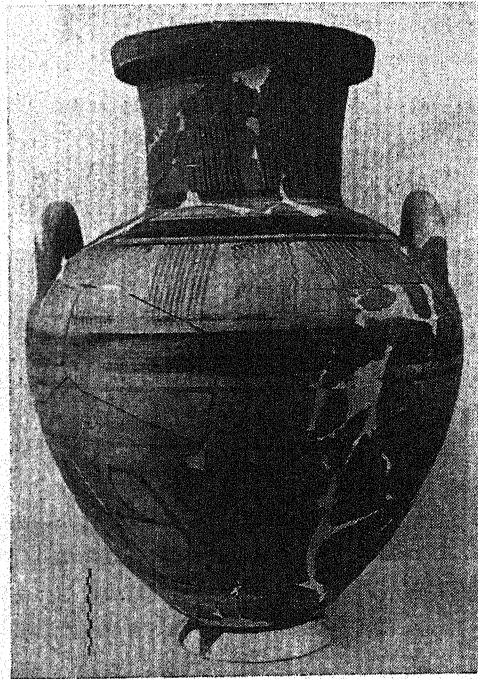


Fig. 1. Amphora used for *Enchytrismos* Burial in Grave 68.

0.35 m. No skeletal remains were found, but in the amphora was a small saucer. Late fifth or fourth century B. C.

Grave 66. Unprotected burial of an adult lying supine, right arm at the sides, legs extended. The bones were fragmentary and most of the left side was entirely disintegrated. Length to knees 1.08 m. Depth 1.10 m. Head at the north-east. In the mouth were four bronze coins of the Chalcidians, Inv. 34. C. 1363; 34. C. 1397 and 1398; 34. C. 1427, *Olynthus*, IX, p. 222, no. 9. Fourth century B. C.

Grave 67. Unprotected burial of an adult lying supine, arms at the sides, legs extended, with the head at the east. The bones were very much disintegrated. L. preserved to shortly below the knees 1.36 m. Depth 0.70 m. No grave furniture was found.

Grave 68. Pls. XIII and LX, 39. *Euchytrismos*. Large amphora (Fig. 1, p. 15) of native Olynthian ware lying on its side with mouth to the east. The amphora (Fig. 1), Inv. 34. P. 224, seems not to have been broken at the shoulder in antiquity. Evidently the aperture in the neck, about 0.21 m., was large enough to admit the corpse. L. about 0.70 m. Dm. about 0.52 m. It was decorated

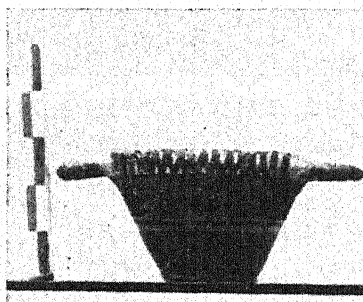


Fig. 2. Scyphus from Grave 68.

on the outside with parallel vertical lines, broad bands and double loops. The amphora (Fig. 1) is illustrated in *A.J.A.*, XXXIX, 1935, p. 225, Fig. 23 and discussed with parallels *ibid.*, p. 241. It is a seventh or sixth century type but such were duplicated in even later times or survived as heirlooms. Depth to amphora (Fig. 1) 0.60 m. No skeletal remains were found. In the amphora (Fig. 1) was a miniature scyphus (Fig. 2), Inv. 34. P. XVa-7, similar to one in grave 31. Probably early fifth or sixth century B. C.

Grave 69. Wooden coffin, as indicated by iron nails with large heads found around the skeleton and the objects. At a depth of one meter lay the skeleton of a child with the head at the east, but too fragmentary to tell any more about its position. Near the center of the grave was a large deposit of objects: squat lecythus, Inv. 34. P. 150; glass amphoriscus, Inv. 34. P. 249; terracotta

figurines, Inv. 34. T. 140-144, 146-148, 177, 189, 204, 206, 214; a figurine with a Phrygian cap; two standing figures, not inventoried because of their fragmentary condition; two earrings, *Olynthus*, X, no. 311; two bronze bracelets, *Olynthus*, X, no. 207 (the other fragmentary and not inventoried); bone pendant, Inv. 34. ms. 32; an iron strigil (fragmentary); and twenty-three astragali. Late fifth or early fourth century B. C.

Grave 70. Pl. XIII. Wooden coffin, indicated by iron nails about the head and feet. Depth 0.50 m. The skeleton of an adult lay supine, arms at the sides, legs extended, with the head at the east. L. 1.37 m. to about the middle of the tibia. In the mouth was a hemiobol of the Chalcidians, Inv. 34. C. 1248, *Olynthus*, IX, p. 19, l and p. 221, no. 5. A tetrobol was just outside of the mouth, Inv. 34. C. 1479, *Olynthus*, IX, p. 221, no. 3. At the right elbow was a squat lecythus, Inv. 34. P. VIa-12, and at the left a very small undecorated one, Inv. 34. P. 268. Fourth century, probably about 370 B. C.

Grave 71. Pl. XIII. Wooden coffin, indicated by iron nails around the skeleton. The very fragmentary skeleton of an adult lay supine, with the head at the east. Depth 0.60 m. On a finger bone of the left hand was a bronze ring, *Olynthus*, X, no. 486 (wrongly attributed to grave 296). At the feet was a squat lecythus with palmette design (not inventoried). Across the right thigh was a bronze strigil in fragments. Fourth century B. C.

Grave 72. Pl. XIII. Wooden coffin, indicated by iron nails (fragmentary) around the skeleton. The trench in which the coffin was placed was originally covered by eleven Laconian cover tiles laid crosswise over it, with the concave side down. They were found broken and appeared, when excavated, as shown on Plate XIII. L. of trench 2.18 m. W. 0.67 m. H. of tiles above the skeleton about 0.50 m. Depth to tiles 0.70 m. The skeleton of an adult lay supine, arms at the sides, legs extended, with the head at the east end. Only fragments remained of the skull, arms and legs. On the skull was a gilded bronze wreath, *Olynthus*, X, no. 505.² At the

² To the references given there, add *Hesperia*, VI, 1937, pp. 363 and 366, fig. 27, a Roman grave at Athens. For ancient references cf. Aristophanes, *Ecclesiazusae*,

feet were four large black-glazed bowls, Inv. 34. P. XIV-6; 34. P. XIV-8; 34. P. XIV-9; 34. P. XIV-10. Late fifth or early fourth century B. C.

Grave 73. Pl. XIII. Wooden coffin, indicated by iron nails around the skeleton. The nails were standing on their heads with the points up in parallel lines at either side of the upper part of the body, with another nail above the right side of the head, as if it belonged to the head-piece. The skeleton of an adult lay supine, hands over the pelvis, legs extended, with the head at the east, lying on the left cheek. The legs were missing entirely to the middle of the femurs. L. preserved 1.01 m. Depth 0.50 m. In the mouth was a silver coin of Heraclea Trachinia, Inv. 34. C. 1686, *Olynthus*, IX, p. 242, no. 1, Pl. XXXII, 12. Fourth century B. C.

Grave 74. Pl. XIII. Flat tile covering, one tile long. The tile was broken into small pieces and caved in at the center. Under it was the skeleton of a child, very much disintegrated, lying supine with the head at the east. Left of the head was a one-handled bowl, Inv. 34. P. IV-9, and right of the feet was a shallow scyphus, Inv. 34. P. IV-8. To the left of the feet was a feeding bottle, Inv. 34. P. VII-7. Second quarter of the fourth century B. C.

Grave 75. Wooden coffin, indicated by iron nails found at the head and at the right side. The skeleton of an adult lay supine, arms at the sides, legs extended, with the head at the east. L. about 1.25 m. to the knees. Depth 0.90 m. The bones were very fragmentary. By the right arm was a lecythus, Inv. 34. P. 194. Probably early fifth century B. C.

Grave 76. Cremation. At a depth of 0.60 m. was a large layer of charred matter and ashes containing many fragmentary bones, probably human, entirely disarranged, and the following furniture: Black-glazed shallow dish, Inv. 34. P. XIV-7; terracotta pig, Inv. 34. T. 176; a fragmentary tortoise; a pair of silver earrings, *Olynthus*, X, no. 300; fragments of two bronze bracelets, not inventoried; two astragali. Late fifth or fourth century B. C.

538; *Lysistrata*, 602; Euripides, *Phoenissae*, 1632; Plutarch, *Timoleon*, 26; Alciphron, *Epistle*, I, 36.

Grave 77. Pls. XIV and LIX, 2. *Enchytrismos*. Amphora lying on its side with the mouth to the east-north-east. Part of the upper side was caved in and most of the neck was missing. No skeletal remains or grave furniture were found. Fifth century B. C.

Grave 78. Pl. XIV. Gabled tile covering, one tile long. The tiles were very much destroyed and disintegrated because the grave was so near the surface of the ground. Depth to tiles 0.20 m. The skeleton of a child lay supine, legs extended, with the head at the east end of the grave. The bones had almost entirely disintegrated. Between the legs was a saucer, and outside of the right leg was another (not inventoried). At the feet was a squat lecythus, Inv. 34. P. VI-38. Fourth century B. C.

Grave 79. Pl. XIV. Wooden coffin, indicated by fragments of large iron nails around the skeleton. The extent of the trench dug to contain the coffin was clearly visible, to a height of about 0.35 m. from the bottom. It measured 1.80 m. long and 0.50 m. wide. The skeleton of an adult lay supine, arms at the sides, legs extended, with the head at the east. L. of skeleton about 1.40 m. No grave furniture was found.

Grave 80. Pls. XIV and LIX, 21. Gabled tile covering, one tile long, with a cover-tile on the ridge and parts of a broken amphora at both ends. The grave was shallow and somewhat disarranged. Orientation east and west. No skeletal remains or grave furniture were found. Fourth century B. C.

Grave 81. Pls. XIV and LIX, 21 (bottom). *Enchytrismos*. Amphora, with the neck and shoulder missing, turned bottom up. No skeletal remains or grave furniture were found. Fourth century B. C.

Grave 82. Unprotected burial of an adult lying supine, arms at the sides, with the head at the east. The legs were missing and the remainder fragmentary. Depth 0.80 m. No grave furniture was found.

Grave 83. Pl. XV. Gabled tile covering, two tiles long. The tiles were quite broken and pieces were missing. L. 1.27 m. W.

0.47 m. The skeleton (b) of an adult lay supine, arms at the sides, legs extended, with the head at the south. Only fragments of the bones remained. On the chest was a bronze coin of the Chalcidians, *Olynthus*, VI, 418; *Olynthus*, IX, p. 298. On the pelvis was a scyphus, *Olynthus*, V, 543. Between the thighs were a scyphus, *Olynthus*, V, 548; a shallow bowl, *Olynthus*, V, 582; and a bronze handle, *Olynthus*, X, no. 700. Fourth century B. C.

Grave 84. Unprotected burial of a child. Only a few bones were found, and the orientation is uncertain. With the bones were a terracotta satyr, *Olynthus*, VII, 326, and a terracotta pig, *Olynthus*, VII, 343. Late fifth or fourth century B. C.

Grave 85. Pl. XV. Gabled tile covering, one tile long. The tiles had collapsed before they broke, so that they were lying almost flat, the one over the other. The skeleton (b) of a child lay supine, arms at the sides, legs extended, with the head at the east. The bones were very much disintegrated. No grave furniture was found.

Grave 86. Pls. XV and LX, 30. *Enchytrismos*. Amphora lying on its side with the mouth to the north-east. One handle and a piece of the upper side were missing. No grave furniture or skeletal remains were found. Fourth century B. C.

Grave 87. Pl. XV. *Enchytrismos*. Amphora lying on its side with the mouth to the north. The shoulder and neck were missing and the end was closed by stones. It contained the skeleton of an infant, the bones now scattered but fairly well preserved. Among them were a two-handled bowl with cover, *Olynthus*, V, 1015, and a silver earring, *Olynthus*, X, no. 295. Late fifth century B. C.

Grave 88. Pl. XVI. Gabled tile covering, one tile long. The fragmentary skeleton (b) of a child of about three years lay supine with the head at the east. By the feet was a terracotta figurine, *Olynthus*, VII, 279. Near the center of the grave, among the bones, were four more terracottas, one a dancer similar to *Olynthus*, VII, 186, two seated females and a mask. All four were fragmentary and were not inventoried.

Grave 89. Pls. XVI and LX, 31. *Enchytrismos*. A long amphora lying with the mouth to the east. L. to shoulder 0.59 m. Dm. 0.35 m. The neck and handles were missing. A small amphora was leaning against the north side. No skeletal remains were found, but inside the amphora near the foot was a two-handled bowl with cover (Fig. 3), *Olynthus*, V, 1018. Fourth century B. C.

Grave 90. Pl. XVI. Gabled tile covering, one tile long, with parts of tiles at both ends. The skeleton of a child lay supine,



Fig. 3. Amphora with Covered Bowl inside.
Grave 89.

with the head at the east. Beside the right leg was a squat black-glazed lecythus. Over the left side of the pelvis was a terracotta female mask with the hands on the breasts. Over the right arm was a similar one. Eight astragali were scattered throughout the grave. End of fifth or fourth century B. C.

Grave 91. Pl. XVI. Gabled tile covering, one tile long, with parts of tiles at both ends. The tiles were standing erect in a good state of preservation. L. 1.02 m. W. 0.60 m. The fragmentary skeleton (b) of a child lay supine, with the head at the east end. L. about 0.96 m. On the pelvis were some terracotta figurines: a satyr, *Olynthus*, VII, 323; a *kourotrophos*, *Olynthus*, VII, 254; and some

fragments of another. With them was an iron strigil, *Olynthus*, X, no. 563; a lead astragalus, *Olynthus*, X, no. 2565; and fifty-three other astragali. Fourth century B. C.

Grave 92. Pl. XVI. Unprotected burial of an adult lying supine, arms at the sides, legs extended, with the head at the east. L. 1.46 m. On top of the skull was found a bronze coin of Philip II, *Olynthus*, VI, 948, and IX, p. 327. To the left of the pelvis was a squat lecythus, *Olynthus*, V, 414. The grave was partly over grave 93. After 359 B. C.

Grave 93. Pl. XVII. Gabled tile covering, two tiles long, with parts of tiles at both ends and another under the skeleton. The head-end tiles were propped up by two stones. The grave was under grave 92. It contained fragments of the skeleton (b) of an adult lying supine, legs extended, arms probably at the sides, with the head at the north-east. No grave furniture was found.

Grave 94. Pl. XVII. The corpse had been covered with part of a cover-tile (0.49 m. long) placed with the narrow end over the feet. The head, which protruded at the north-east end, was covered with the bottom of a coarse amphora. The skeleton (b) was that of an infant lying supine in an extended position. L. 0.37 m. At the left side of the skeleton were two small saucers and a small pyxis of fourth century fabric. Fourth century B. C.

Grave 95. Pl. XVII. *Enchytrismos*. Amphora lying on its side with the mouth to the east. It was much broken and most of the upper part was missing. In it was the skeleton of an infant, still fairly well preserved. On the skeleton were a two-handled bowl with cover, *Olynthus*, V, 1017, and a lead weight similar to one found in grave 100. Fourth century B. C., second quarter.

Grave 96. *Enchytrismos*. Amphora lying on its side with the mouth to the east, much broken and the neck missing. No skeletal remains or grave furniture were found.

Grave 97. Gabled tile covering, one tile long. Badly broken and partly disintegrated. The skeleton of a child lay supine, with

the head at the east and the legs extended. Only the bones of the legs were found. No grave furniture was found.

Grave 98. Pl. XVII. Gabled tile covering, two tiles long, with part of a tile at the east-north-east end. The tiles were standing approximately in their original position, but pieces of the top of the tiles were missing. The skeleton of an adult lay supine, arms at the sides but missing from the elbows, legs extended, head at the east-north-east. No grave furniture was found.

Grave 99. Pl. XVII. Gabled tile covering, two tiles long. Orientation east and west. The tiles leaned to the south and were broken off a few centimeters from the bottom. The top had collapsed, with the north tiles falling over the south tiles. The grave was directly over grave 100. L. 1.55 m. W. 0.31 m. No skeletal remains or grave furniture were found.

Grave 100. Pl. XVII. Gabled tile covering, two tiles long. Directly under grave 99. The tiles had collapsed and broken into a flat mass of sherds. The skeleton (b) of an adult lay supine, with the head at the east, left arm at the side, the right hand on the pelvis, legs extended. The head, which was largely disintegrated, lay against the left shoulder. On the left flank was a lead weight, similar to one in grave 95, *Olynthus*, X, no. 2471. Fourth century B. C.

Grave 101. Pl. XVII. *Enchytrismos*. Amphora lying on its side with the mouth to the east. No skeletal remains were found. In the amphora was a miniature Corinthian scyphus, Inv. 31. P. 673.

Grave 102. Gabled tile covering, one tile long. The tiles were badly broken and partly missing. The very fragmentary skeleton of a child lay supine, with the head at the east. Over the pelvis were three terracotta satyrs, Inv. 31. T. 402, similar to the one in grave 91 (cf. *Olynthus*, VII, Pl. 39), and scattered about the grave were twenty-two astragali. Fourth century B. C.

Grave 103. Pl. XVII. Unprotected burial of a child, lying supine, arms at the sides, legs extended, with the head at the north-west. The head lay on the pelvis of the skeleton in grave

104, where the tiles had been broken away. The grave diggers had dug through the tiles, but stopped when they came to the skeleton. Four bronze coins, *Olynthus*, VI, 431, 617, 618, 619; *Olynthus*, IX, p. 298, found by the pelvis of grave 104 evidently had fallen through the head of the corpse in grave 103. Fourth century B. C.

Grave 104. Pl. XVII. Gabled tile covering, two tiles long. A large stone lay against the north-east tile. The west tiles were well preserved but the east tiles were broken and the middle of the south tile was missing. L. 1.86 m. W. 0.39 m. The skeleton (**b**) of an adult lay supine, with the head at the east, the legs slightly flexed to the south, the right arm at the side, the left one missing. On the pelvis was the head of the child in grave 103. Between the right arm and ribs were a pitcher, *Olynthus*, V, 839, and a bowl, *Olynthus*, V, 915. Fourth century B. C.

Grave 105. *Enchytrismos*. Amphora standing obliquely with the whole top part missing. No skeletal remains were found. In the bottom were a saucer and a one-handled bowl of typical fourth century ware. Fourth century B. C.

Grave 106. *Enchytrismos*. Amphora lying on its side with the mouth to the east. Only the bottom of the amphora remained. In it was a small saucer. No skeletal remains were found. Fourth century B. C.

Grave 107. Unprotected burial, probably of an adult. Only a few scattered bones were found. Orientation unknown. With the bones were a plemochoe, *Olynthus*, V, 6, and a black-glazed scyphus, *Olynthus*, V, 31. Late sixth century B. C.

Grave 108. Unprotected burial probably of a child, to judge from the extent of the remains and the objects found. Only a few scattered fragments of bone were found. Orientation unknown. Among the bones were the following objects: squat lecythus, *Olynthus*, V, 437; one-handled jug, *Olynthus*, V, 743; three terracottas, *Olynthus*, VII, 193, 194, 345; three bronze earrings, *Olynthus*, X, nos. 307, 308, 310; and some bronze and bone beads, Inv. 31.363. Second quarter of the fourth century B. C.

Grave 109. Fig. 7, p. 50; Fig. 12, p. 59. Gabled tile covering,

two tiles long, with the tiles greatly overlapping. Orientation east-south-east by west-north-west. L. 1.35 m. W. 0.55 m. The tiles were considerably smashed. No skeletal remains were found. Under the tiles were an iron strigil and six astragali. Just north of the grave was a plain vase. Late fifth or fourth century B. C.

Grave 110. Pl. XVIII. Gabled tile covering, two tiles long, with parts of tiles at both ends. The tiles were fairly intact. L. 1.83 m. W. 0.50 m. The skeleton (b) of an adult lay supine, arms at the sides, legs extended, with the head at the east. The head was pushed in between the shoulders. The legs were well preserved, but the upper part of the body was somewhat disintegrated where the tiles had stood up and were not entirely filled with earth. Three bronze coins, *Olynthus*, VI, 139, 391, 417, *Olynthus*, IX, pp. 315 (Terone) and 298 (Chalcidians), were found in the mouth; and another, *Olynthus*, VI, 766, *Olynthus*, IX, p. 291 (Olophyxus), was found on the shoulder. Over the left thigh was an iron strigil, *Olynthus*, X, no. 564. Fourth century B. C.

Grave 111. Pl. XVIII. Gabled tile covering, one tile long, with part of a tile at the east end. The tiles had fallen down before they broke, with the north tile over the south. The fragmentary skeleton of a child lay supine, with the head at the east end. At the middle of the grave was a vase, *Olynthus*, V, 1063, and at the head was another little one-handled vase. Fourth century B. C.

Grave 112. Gabled tile covering, one tile long. Orientation east and west. No skeletal remains were found. Outside of the grave was a two-handled bowl with cover, *Olynthus*, V, 1022. Fourth century B. C., probably first quarter.

Grave 113. Pl. LIX, 21. *Enchytrismos*. Amphora standing obliquely toward the south-west, the neck and shoulder missing. No skeletal remains or grave furniture were found. Fourth century B. C.

Grave 114. Pl. LX, 30. *Enchytrismos*. Amphora lying on its side with the mouth to the north. It was badly broken. No skeletal remains were found. In the amphora was a small saucer, cf. *Olynthus*, V, Pl. 176. Fourth century B. C.

Grave 115. Pl. XVIII. Cremation. In an area of charred matter and burnt earth about a meter in diameter and 0.10 to 0.15 m. thick were eight astragali and the following terracottas: four female masks, *Olynthus*, VII, 19, 20, 21, 22, and fragments of two more similar ones; female bust, *Olynthus*, VII, 141; standing female, *Olynthus*, VII, 170; two standing females together, *Olynthus*, VII, 174; three seated female figurines, *Olynthus*, VII, 211, 212, 215; two doves, *Olynthus*, VII, 366, 368. No skeletal remains were found. Early fourth century B. C.

Grave 116. Cremation. An area of charred earth and burnt matter about 1.50 m. in diameter. In it were pieces of a large coarse amphora and a squat lecythus, *Olynthus*, V, 501, and fragments of a deep scyphus. No skeletal remains were found. Fourth century B. C.

Grave 117. Pls. XVIII and LIX, 24. *Enchytrismos*. Amphora lying on its side with the head end to the east. The part above the shoulder was missing and a piece of tile covered the opening. No skeletal remains or grave furniture were found. Fourth century B. C.

Grave 118. Pl. XVIII. Flat tile covering, one tile long. The tile was intact but was slightly caved in at the center. Orientation east and west. No skeletal remains or grave furniture were found.

Grave 119. Pls. XVIII and LIX, 23. Cremation. An area of charred matter and burnt earth, about 1.00 m. by 1.50 m., on which was a crumbled amphora lying on its side with the mouth to the east. No skeletal remains were found. Under the amphora was a small saucer. Second quarter of the fourth century B. C.

Grave 120. *Enchytrismos*. Amphora. Orientation unknown. No skeletal remains or grave furniture were found.

Grave 121. Pls. XIX and LIX, 9. *Enchytrismos*. Amphora lying on its side with the mouth to the east. The pressure of the earth had pushed the neck and handles into the amphora and crushed the body slightly. In the amphora were a piece of corroded iron, probably a knife, a small saucer and a round-bottomed jug. In the jug were a few small bones. It is possible that they

were bones of the infant buried in the amphora, which in some way fell into the jug and were thus preserved while the remainder of the skeleton disintegrated; but they were more likely the bones of some small animal, probably a pet, placed in the jug and buried with the child. Fourth century B. C.

Grave 122. *Enchytrismos*. Amphora lying on its side with the mouth to the east. The upper part was almost entirely missing. No skeletal remains or grave furniture were found.

Grave 123. Pls. XIX and LX, 28. *Enchytrismos*. Amphora lying on its side with the mouth to the west. It was well preserved with a clear break at the shoulder. The neck was propped in place with stones. No skeletal remains were found. In the amphora was a one-handled bowl, *Olynthus*, V, 916, and in it a saucer. Fourth century B. C., probably second quarter.

Grave 124. Pls. XIX and LX, 26. *Enchytrismos*. Amphora lying on its side with the mouth to the east. The upper side was caved in and some of it missing. Instead of the shoulder being broken off in the usual way to admit the corpse, a hole was broken into the upper side. No skeletal remains were found. In the amphora were two small saucers and a lagynus, *Olynthus*, V, 811. Late fifth or early fourth century B. C.

Grave 125. Pl. XIX. Gabled tile covering, one tile long, with part of a tile at the east end. The bottom part of the tiles was standing erect but the top was broken and caved in. Orientation east and west. No skeletal remains or grave furniture were found.

Grave 126. Gabled tile covering, two tiles long. It was much disarranged, presumably by later grave diggers. Two stones found among the tiles probably were originally placed at the head end. The skeleton of an adult lay supine, with the head at the east end. The legs were missing entirely and the rest was nearly all disintegrated. At one side of the grave was a coarse lagynus, *Olynthus*, V, 835. Early fourth century B. C.

Grave 127. Pl. XIX. Unprotected burial of an adult lying supine, with the head at the east end, arms at the sides, legs extended. The bones were in an advanced state of disintegration.

In the mouth were three bronze coins of the Chalcidians, *Olynthus*, VI, 614, 615, 616; *Olynthus*, IX, p. 298; and near the skull was a fourth century squat lecythus. Fourth century B. C.

Grave 128. Pls. XIX and LX, 29. *Enchytrismos*. A long amphora lying on its side with the mouth to the east-north-east. Some of the upper side was missing. No skeletal remains were found. In the amphora, at the south side, was a small saucer. Early fourth century B. C.

Grave 129. Pl. XIX. Gabled tile covering, one tile long, with parts of tiles at both ends and a tile under the corpse. L. 1.15 m. W. 0.50 m. Depth 0.80 m. Only fragments remained of the skeleton of a child, lying with the head at the east end. No grave furniture was found.

Grave 130. *Enchytrismos*. Amphora lying on its side with the mouth to the east. L. 0.62 m. The amphora was crushed and parts were missing. Depth to the amphora 0.50 m. No skeletal remains or grave furniture were found.

Grave 131. Pl. XIX. *Enchytrismos*. Amphora standing almost erect, leaning slightly to the north-west. The neck and shoulder were smashed into the body of the vase, and the handles with part of the neck were missing. No skeletal remains or grave furniture were found. Fourth century B. C.

Grave 132. *Enchytrismos*. Amphora lying on its side with the mouth to the north-north-west. Depth to amphora 0.80 m. The amphora was very badly broken and much of it was missing. It contained a few small bones but no furniture.

Grave 133. Pl. LX, 29. *Enchytrismos*. Amphora lying on its side with the mouth to the north. The bottom of another was inverted on top of it. L. 0.73 m. Dm. 0.35 m. Depth 1.05 m. In the amphora were a few traces of small bones and a one-handled bowl, Inv. 34. P. III-13. Early fourth century B. C.

Grave 134. Pl. XIX. Flat tile covering, one tile long. It was fairly intact and exceptionally long, 1.30 m., and 0.49 m. wide. It covered only the upper part of the skeleton (b) of an adult lying

supine, with the head at the east, arms at the sides, legs extended. In the mouth of the skeleton were four bronze coins of the Chalcidians, *Olynthus*, VI, 377, 378, 379, 703; *Olynthus*, IX, p. 298. Fourth century B. C.

Grave 135. Pls. XX and LX, 28. *Enchytrismos*. Amphora lying on its side with the mouth to the east. The neck and part of the shoulder were missing. No skeletal remains were found. In the amphora was a small saucer. Fourth century B. C., probably second quarter.

Grave 136. Pl. XX. Stone slab covering of four large rough stones supported by rows of small stones at the sides of the skeleton. Total L. 2.08 m. W. 0.60 m. The stone over the upper part was the largest and measured 1.13 m. long. Depth to the stones 0.90 m. The skeleton was that of an adult lying supine, with the head at the east. It was almost entirely disintegrated, only the leg bones being clearly distinguished toward the west end at a depth of 0.17 m. below the lower face of the stone cover. No grave furniture was found.

Grave 137. Pls. XX and LX, 29. *Enchytrismos*. Amphora lying on its side with the mouth to the west. The neck and one half of the shoulder were broken away and were missing. The remainder was in good condition. No skeletal remains were found. A small saucer was standing in the amphora. Fourth century B. C.

Grave 138. Pls. XX and LX, 28. *Enchytrismos*. Amphora lying on its side with the mouth to the east. It had a clear break at the shoulder. No skeletal remains or grave furniture were found. Fourth century B. C., probably early in the second quarter.

Grave 139. *Enchytrismos*. Amphora lying on its side with the mouth to the west. It was much broken and the upper part was missing. No skeletal remains or grave furniture were found.

Grave 140. Pls. XX and LX, 31. *Enchytrismos*. Amphora standing erect, slightly inclined to the east. The neck and shoulder were missing. No skeletal remains or grave furniture were found. Fourth century B. C.

Grave 141. Flat tile covering, one tile long. The tile had

apparently been broken off to the length of 0.60 m. Under it was part of the side of a coarse amphora with the concave side up, in which, presumably, the corpse of an infant was laid. No grave furniture was found. Fourth century B. C.

Grave 142. Pls. XX and LX, 27. *Enchytrismos*. Amphora lying on its side with the head end to the east. The neck and



Fig. 4. Red-figured Pelice used as
Burial Urn in Grave 143.

shoulder were missing and the opening was closed by a large flat stone. No skeletal remains or grave furniture were found. Probably fourth century B. C.

Grave 143. Pls. XX and LX, 28. Cremation. In an area of charred matter about a meter in diameter stood an amphora, badly burnt and blackened by the fire. The shoulder had been broken off and carefully replaced. L. 0.62 m. Dm. 0.36 m. On the shoulder lay an alabastrum (143 a), *Olynthus*, V, 859 (wrongly

published as from East Cemetery). In the amphora (b) stood (Fig. 4) a pelice, *A.J.A.*, XXXVI, 1932, p. 125, Pl. V, 2; *Olynthus*, V, 144, decorated by the Europa Painter about 370 B. C. The pelice (shown before cleaning in 143 b), representing Hermes, Aphrodite and Poseidon, contained bones and some ashes from the cremation. For fourth century pelicae with cremated bones in Thrace cf. *Arch. Anz.*, XXXIII, 1918, pp. 15 f. About 370-360 B. C.

Grave 144. Pl. XXI. Gabled tile covering, two tiles long, with parts of tiles at both ends. The tiles at the east end were almost entirely missing but those at the west end stood intact. The skeleton of an adult lay supine, legs extended, with the head at the east. The legs, over which the tiles were intact, were in a fair state of preservation, but the rest of the skeleton had vanished almost entirely. In the mouth was a bronze coin of the Chalcidians, *Olynthus*, VI, 626, *Olynthus*, IX, p. 298. Fourth century B. C.

Grave 145. Pl. XXI. Gabled tile covering, one tile long, with the bottom of an amphora inverted over the head of the corpse and parts of the sides placed over the feet. L. 1.34 m. W. 0.37 m. The skeleton of a child lay supine, legs extended, with the head at the east end. Only the legs were preserved. At the east end, where it apparently had been in the mouth, was a bronze coin of the Chalcidians, *Olynthus*, VI, 625; IX, p. 298. On the pelvis were parts of an iron strigil, *Olynthus*, X, no. 566, and scattered through the grave were eight astragali. Fourth century B. C.

Grave 146. Pl. XXI. Apparently the grave of an infant, covered by part of a cover tile, broken to a length of 0.45 m. Orientation east-north-east by west-south-west. No skeletal remains or grave furniture were found.

Grave 147. Pl. XXI. Gabled tile covering, one tile long, with parts of tiles at both ends. The tiles, though broken, stood practically in their original position. L. 1.06 m. W. 0.53 m. H. 0.35 m. Depth 0.70 m. Only traces remained of the skeleton of a child, lying with the head at the east end. Where the head had been were two bronze coins, one of the Bottiaeans, the other of the

Chalcidians, *Olynthus*, IX, p. 224, no. 16, and p. 222, no. 8. In the fill above the east end of the grave was a fragment of a seated terracotta figurine, Inv. 34. T. 63. Fourth century B. C.

Grave 148. Pl. XXI. Gabled tile covering, two tiles long, with parts of tiles at both ends. A stone was placed against the west end-tile and another against the center of the north side. The tiles were very much broken. L. 1.78 m. W. 0.62 m. The skeleton of an adult, almost entirely disintegrated, lay supine, with the head at the east end. No grave furniture was found.

Grave 149. Pl. XXI. Gabled tile covering, two tiles long, with parts of tiles at both ends. The grave had collapsed so that the tiles lay flat on one another. They were then broken into small pieces. L. 1.64 m. W. 0.60 m. The skeleton of an adult lay supine, with the head at the east, the legs extended. Only the legs remained. No grave furniture was found.

Grave 150. Pl. XXI. Gabled tile covering, one tile long, with part of a tile at the east end. The tiles were broken and much of them was missing, especially at the west end where pieces had been removed when grave 151 was dug. The skeleton of a child lay supine, with the head at the east. Only fragments of the skull and right leg remained. At the north side of the middle of the grave were two bronze earrings, *Olynthus*, X, nos. 270 and 271. Late fifth or early fourth century B. C.

Grave 151. Pl. XXI. *Enchytrismos*. Amphora lying on its side with the mouth to the north. No skeletal remains or grave furniture were found. End of fifth or fourth century B. C.

Grave 152. Pl. XXI. Cremation. In an area of charred matter and burnt earth, about 1.00 m. by 1.75 m., lay the skeleton of an adult, supine, legs extended, arms at the sides, with the head at the east. The bones were burnt and very fragmentary so that no more than the outline of the skeleton could be detected. The skeleton was covered with pieces of a coarse amphora, which also showed marks of fire. It is not certain whether the amphora had been used in the ritual and then its pieces covered over the skeleton, or whether the corpse had been covered by the pieces of

amphora and then burnt. Probably the former is the case. The skeleton was then covered by a gabled tile covering, two tiles long, after it was cremated. The tiles were not burnt. The tiles had collapsed over one another and then broken into small pieces. For a similar covering of the cremated skeleton in Rhodes, cf. *Clara Rhodos*, IV, 1931, p. 163, grave LXIV. No grave furniture was found.

Grave 153. Pl. XXII. Gabled tile covering, two tiles long, with part of a tile at the west end, and a tile under the east end of the corpse. L. 1.75 m. W. 0.50 m. The skeleton (b) of a child lay supine, with the head at the east. It was almost entirely disintegrated. Over the pelvis were two badly corroded iron strigils (not inventoried) and a bronze one, *Olynthus*, X, no. 529. Beside the left leg was a squat lecythus, *Olynthus*, V, 435; and a two-handled scyphus similar to *Olynthus*, V, 552. Eighteen astragali were scattered through the western part of the grave. Second quarter of the fourth century B. C.

Grave 154. Pls. XXII and LX, 27. *Enchytrismos*. Amphora lying on its side with the mouth to the west. The body was quite broken. No skeletal remains were found. In the amphora were a plain, coarse plemochoe and a two-handled bowl with cover, *Olynthus*, V, 1020. Early in the second quarter of the fourth century B. C.

Grave 155. Pl. LIX, 23. *Enchytrismos*. Amphora lying on its side with the mouth to the east. The whole top part was missing. No skeletal remains or grave furniture were found. Fourth century B. C.

Grave 156. Pl. XXII. Gabled tile covering, two tiles long, with part of a tile at the east end. A stone was propped against it, and the lower part of an amphora was inverted against the west end, propped up by a stone at either side. The skeleton (b) of an adult lay supine, with the head at the east, arms at the sides, legs extended. In the mouth was a bronze coin, *Olynthus*, VI, 385, *Olynthus*, IX, p. 298. Left of the thighs was a squat lecythus, *Olynthus*, V, 410, and fragments of a lead box, *Olynthus*, X, no. 592 a and b. Second quarter of the fourth century B. C.

Grave 157. Pl. XXII. Gabled tile covering, two tiles long. The east tiles had been propped up by two large stones on the north side and part of an amphora on the south. The grave collapsed and the stones and amphora lay on top of the tiles. Only traces remained of the skeleton of an adult lying supine, with the head at the east, the arms at the sides, and the legs extended. Two bronze coins of the Chalcidians, *Olynthus*, VI, 610 and 712, *Olynthus*, IX, p. 298, were found, the one under the jaw and the other over the right shoulder. By the knees was a squat lecythus, Inv. 31. P. 514, and outside of the left thigh was another (not inventoried). The designs on them were probably palmettes, though they were quite obliterated. Over the left shoulder was a bronze plate for reinforcement, with a hole at either end, *Olynthus*, X, no. 1320. Fourth century B. C.

Grave 158. Pl. XXII. Gabled tile covering, one tile long, with part of a tile at the east end. The west end of the tiles was much destroyed. Orientation east and west. No skeletal remains or grave furniture were found.

Grave 159. Unprotected burial of an adult lying supine, with the head at the east end, the arms at the sides and the legs extended. The skeleton was in an advanced stage of disintegration. The head was crushed down with the jaw on the left shoulder. L. to ankles 1.53 m. On the right side of the pelvis was a deep scyphus, *Olynthus*, V, 976, and at either side of the knees was a shallow scyphus, one published in *Olynthus*, V, 982 and the other fragmentary and not published. Second quarter of the fourth century B. C.

Grave 160. Cremation. In an area of charred matter and burnt earth about a meter wide and two meters long were fragments of bone, probably human, though no position could be determined from them. Among the bones were a scyphus, *Olynthus*, V, 550, fragments of another, and a bronze coin of the Chalcidians, *Olynthus*, VI, 612; *Olynthus*, IX, p. 298. Fourth century B. C., probably first quarter.

Grave 161. Pls. XXII and LIX, 20. *Enchytrismos*. Amphora

lying on its side, with the mouth to the east. The neck was propped up by stones. It was lying against the south side of grave 162, and was later in date. No skeletal remains or grave furniture were found. Middle of fourth century B. C.

Grave 162. Pl. XXII. Gabled tile covering, one tile long, with parts of tiles at both ends and a tile below the corpse and another above. Orientation east and west. No trace of a skeleton was found. Near the west end was a saucer with a stamped design, *Olynthus*, V, 589, and at the center was a two-handled bowl, *Olynthus*, V, 1004. Fourth century B. C.

Grave 163. Pl. XXIII. Flat tile covering, two tiles long. The tiles were much broken and somewhat caved in at the center. The west end had been washed away by the river. The skeleton (b) of an adult lay supine, with the head at the east, arms at the sides, legs extended. The bones were not well preserved. The feet had fallen into the river. No grave furniture was found.

Grave 164. Gabled tile cover, one tile long. The fragmentary skeleton of a child lay supine, with the head at the east. In the mouth was a silver coin of the Chalcidians, *Olynthus*, VI, no. 97; *Olynthus*, IX, p. 19. The coin is dated about 417 to about 412 B. C., and, since it showed little attrition, the grave is probably not much later.

Grave 165. Gabled tile covering, two tiles long. The tiles were very badly crushed in. L. 1.70 m. The skeleton of an adult lay supine, with the head at the east. It was also very much disintegrated. In the mouth was a bronze coin of Amphipolis, *Olynthus*, VI, p. 44, no. 41; IX, p. 271. Fourth century B. C.

Grave 166. Flat tile covering, two tiles long, with the tiles much overlapped, the west tiles over the east. They were much broken. L. 1.15 m. W. 0.45 m. Only fragments remained of the head and legs of a child, lying with the head at the east end. No grave furniture was found.

Grave 167. Pl. XXIII. Gabled tile covering, two tiles long, with parts of tiles at both ends. Orientation east and west. No skeletal remains or grave furniture were found.

Grave 168. Pls. XXIII and LX, 26. *Enchytrismos*. Amphora lying on its side with the mouth to the west. No skeletal remains or grave furniture were found. End of fifth or early fourth century B. C.

Grave 169. Flat tile covering, one tile long. Pieces of the tiles were missing. Orientation east and west. No skeletal remains were found. At the middle of the south side was a pitcher, *Olynthus*, V, 772. Late fifth or early fourth century B. C.

Grave 170. Tile covering, much disturbed and type indeterminate. Orientation east and west. No skeletal remains were found. Toward the west end were a squat lecythus, *Olynthus*, V, 474; a ribbed cup, *Olynthus*, V, 537; a large unpainted pitcher, Inv. 31. P. 647; and a small saucer, Inv. 31. P. 235. Second quarter of fourth century B. C.

Grave 171. Pl. XXIII. Gabled tile covering, one tile long. The east end of the tiles stood intact but the west end was missing, probably having been removed when grave 160 was dug, though it was at some distance away. L. 0.63 m. W. 0.45 m. H. 0.40 m. The skeleton (b) of a half grown child lay supine, with the head at the east, the arms at the sides. It was preserved only to the pelvis. No grave furniture was found.

Grave 172. Pl. XXIII. Gabled tile covering, two tiles long, with parts of tiles at both ends. The grave had collapsed and the tiles were much broken. L. 2.00 m. The skeleton (Fig. 5) of an adult lay supine, with the head at the east, the legs extended. It was much disintegrated. Across the pelvis was a bronze strigil with the handle on the left side, probably held in the left hand, *Olynthus*, X, no. 542.

Grave 173. Pl. XXIII. Gabled tile covering, two tiles long, with parts of tiles at both ends. The grave had collapsed. Orientation east and west. No skeletal remains were found. At the west end, outside of the tiles, were two terracotta satyrs (not inventoried).

Grave 174. Pls. XXIV and LIX, 25. *Enchytrismos*. Amphora lying on its side with the mouth to the east. A stone covered the

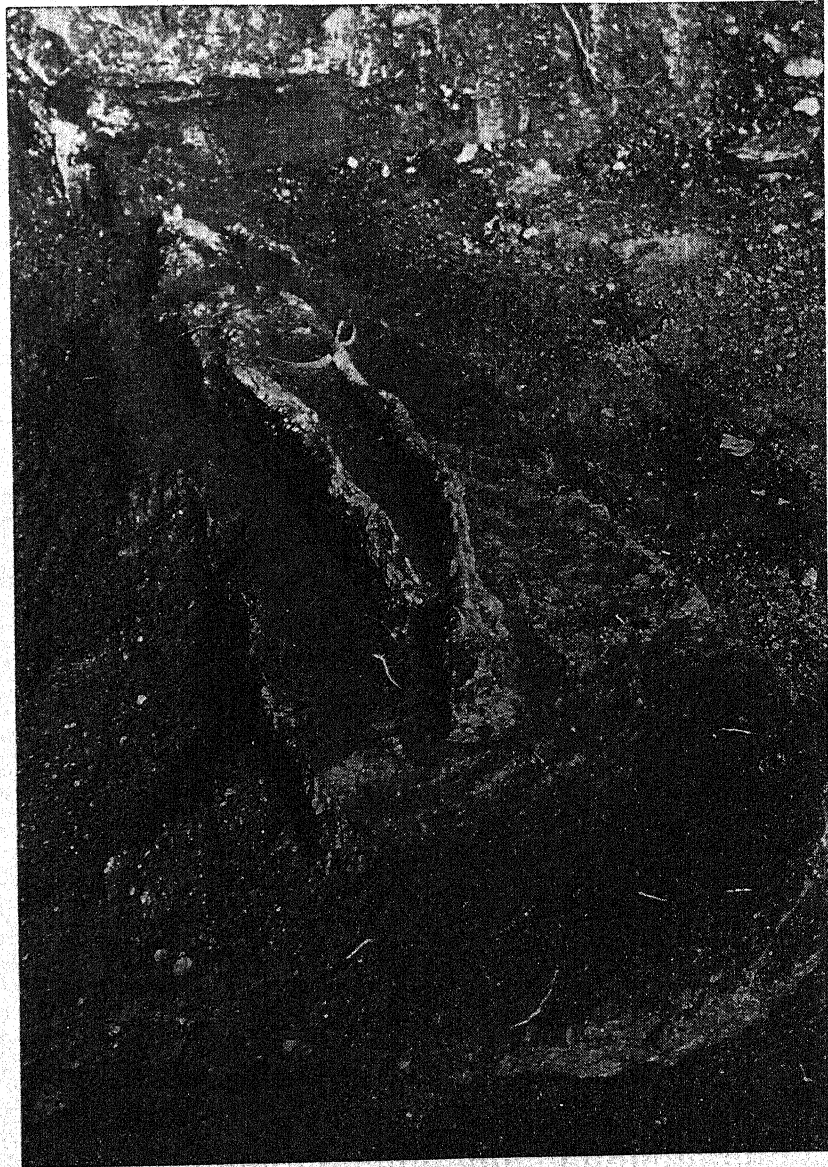


Fig. 5. Grave 172.

mouth and another was propped against the south side. Clear break at the shoulder, and the body of the amphora was crushed. No skeletal remains or grave furniture were found. Fourth century B. C.

Grave 175. Pl. XXIV. Gabled tile covering, two tiles long, with part of a tile at the east end and a cover tile on the ridge. The tiles were well preserved except the west end, which was missing. The skeleton of an adult in an advanced stage of disintegration lay supine, with the head at the east, the arms at the sides, the legs extended. In the mouth were four bronze coins of the Chalcidians, *Olynthus*, VI, 364, 365, 366; *Olynthus*, IX, p. 298 (one not inventoried). On the pelvis was a squat lecythus with a palmette design. Scattered about the center of the grave were eleven paste beads. Fourth century B. C.

Grave 176. Pl. XXIV. Gabled tile covering, two tiles long. The tiles were very much broken but complete except the west end, which was missing. The skeleton of an adult lay supine, with the head at the east, left arm at the side, right hand over the pelvis, legs extended. The bones were much disintegrated. No grave furniture was found.

Grave 177. Pl. XXIV. Fig. 7, p. 50. The skeleton of a child lay supine, with the head at the east. It was covered by a tile with stones at the ends. L. 0.99 m. It was about 0.06 m. above grave 177 A. At the foot (Fig. 6) was a terracotta seated female figurine, similar to *Olynthus*, VII, 222, Pl. 28. At the center was a bronze bracelet, *Olynthus*, X, no. 200. At the neck was a bronze pendant, *Olynthus*, X, no. 427. Four astragali were scattered about the grave. Fourth century B. C.

Grave 177 A. Cremation. 0.06 m. below grave 177 was an area about a meter in diameter of charred matter and burnt earth containing some fragments of burnt bone and a burnt scyphus. Late fifth or early fourth century B. C.

Grave 178. Pl. XXIV. Fig. 7, p. 50; Fig. 12, p. 59. Gabled tile covering, one tile long, with a semicircular plaque at either end and another propped against the south side. Only fragments

remained of the skeleton (b) of a child, lying supine with the head at the south-east. By the left shoulder were a squat lecythus with net-pattern design and a terracotta dove. By the right shoulder was a terracotta seated female of the same type as *Olynthus*, VII, 229. Toward the feet was a smaller one, similar to *Olynthus*, VII, 213, but with a rectangular base. By the feet were two terracotta boys, similar to *Olynthus*, VII, 281 and 283, and a one-handed bowl of

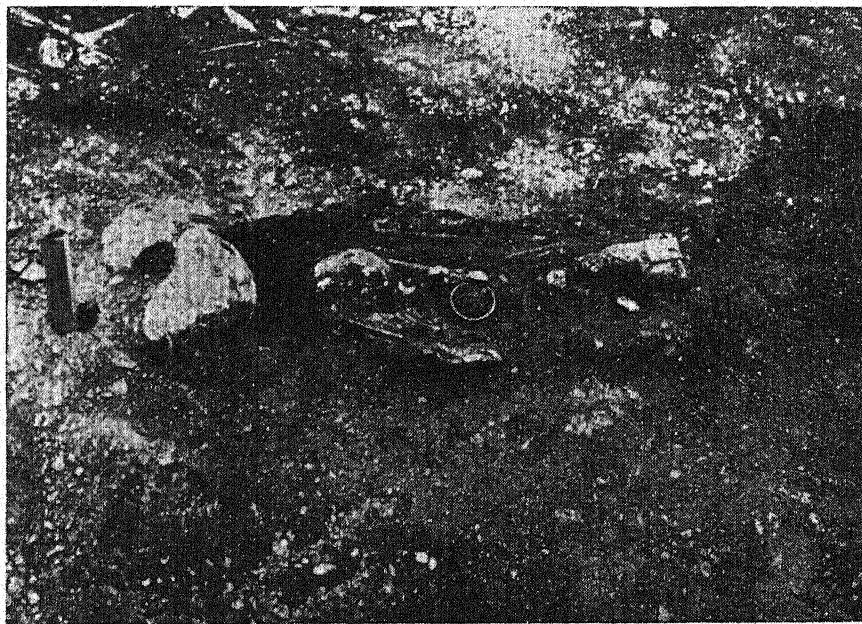


Fig. 6. Grave 177.

the fourth century. Eleven astragali were scattered through the grave. Fourth century B. C.

Grave 179. Pl. XXV. Gabled tile covering, one tile long, with parts of tiles at both ends. A few small stones were propped against the south-west end tile and a larger one against the north-west side. Part of the top was missing. L. 1.12 m. W. 0.45 m. Depth 0.60 m. A few traces remained of the skeleton of a child lying supine, with the head at the north-east. Near the mouth was a bronze coin of the Chalcidians, Inv. 34. C. 198, *Olynthus*, IX, p. 221, no. 6. At the middle of the grave were a terracotta rooster,

Inv. 34. T. 15, and a silenus, 34. T. 57, and sixteen astragali. At the feet was a reclining satyr, Inv. 34. T. 62. Fourth century B. C.

Grave 180. Cremation. The charred matter and ashes in the area of burnt earth contained no bones. But among the ashes was a ribbed cantharus, Inv. 34. P. 2. First quarter of fourth century B. C.

Grave 181. Pl. XXV. Unprotected burial of an adult lying supine, with the head at the east, right arm at the side, left hand on the pelvis, legs extended. Depth 0.32 m. No grave furniture was found.

Grave 182. Cremation. Three amphorae were arranged around a large area of charred matter and burnt earth. In all three amphorae were ashes and charred bone fragments. The amphorae were very much broken and it is not possible to ascertain whether the shoulders were broken in antiquity. In the burnt area between the amphorae were a scyphus, Inv. 34. P. 14, two fragments of a plain black lecanium lid, and fragments of an iron strigil, *Olynthus*, X, no. 567. Fourth century B. C.

Grave 183. Pl. XXV. Gabled tile covering, one tile long, with parts of tiles at both ends. Orientation east and west. L. 0.90 m. W. 0.38 m. Depth 0.66 m. No skeletal remains or grave furniture were found.

Grave 184. Unprotected burial. Orientation unknown. No skeletal remains were found. Only two bronze bracelets were found, *Olynthus*, X, nos. 189, 190.

Grave 185. Pl. XXV. Gabled tile covering, two tiles long, with part of a tile at the east end. The tiles were very much broken. L. 1.66 m. W. 0.46 m. The skeleton (b) of an adult, badly crushed by the tiles and much disintegrated, lay supine, with the head at the east, right arm at the side, left hand on the pelvis, legs extended. In the mouth was a bronze coin of the Bottiaean, *Olynthus*, VI, 85; *Olynthus*, IX, p. 300. Fourth century B. C.

Grave 186. Cremation. In an area of burnt earth and charred matter about a meter in diameter were many fragments of burnt

bone in no discernible order and an early fourth century hydria, *Olynthus*, V, 140. Fourth century B. C., probably early in the second quarter.

Grave 187. Pl. XXV. Cremation. In an area of burnt earth and charred matter about a meter in diameter lay an amphora on its side, mouth to the east, very much burnt and broken. There was no shoulder break before the burial. The amphora contained a quantity of charcoal and burnt soil, much of it, if not all, having filtered in from the surrounding area. No skeletal remains or grave furniture were found.

Grave 188. *Enchytrismos*. Fragments were found of an amphora lying on its side, mouth probably to the south-east. No skeletal remains or grave furniture were found.

Grave 189. A child's grave, made by placing two cover tiles with the concave sides together, one under and one over the corpse. Orientation east and west. No skeletal remains or grave furniture were found.

Grave 190. Pl. XXVI. Gabled tile covering, two tiles long. The skeleton (b) of an adult lay supine, with the head at the east, arms at the sides, legs extended. No grave furniture was found.

Grave 191. Pl. XXVI. Gabled tile covering, one tile long, with parts of tiles at both ends and a tile under the corpse. The skeleton of a child lay supine, head at the east, arms at the sides, legs extended. In the mouth was a bronze coin (not inventoried). At either side of the head was a bronze earring, *Olynthus*, X, nos. 303, 304. At the left wrist was a bronze bracelet, *Olynthus*, X, no. 191. At the right shoulder was a terracotta seated female figurine. At the left shoulder was a large terracotta female head, fragmentary, and a figurine with hands to the face. Under the left hand was a terracotta mask, *Olynthus*, VII, 34, and a male figure on a donkey, *Olynthus*, VII, 331. At the left knee was another female figurine. Fourth century B. C.

Grave 192. Gabled tile covering, one tile long. Orientation east and west. No skeletal remains were found. At the left center

of the grave were a one-handled bowl, *Olynthus*, V, 902, and a scyphus of the fourth century, both unbroken. Fourth century B. C.

Grave 193. Pl. XXVI. Cremation. In an area of burnt earth and charred matter about a meter in diameter were fragments of charred bones and the following objects: two deep black-glazed scyphi, two shallow black-glazed scyphi, a very shallow one-handled dish, a sheet of lead plate for reinforcement, containing eleven bronze tacks with large heads, *Olynthus*, X, no. 1308. Fourth century B. C.

Grave 194. Pl. XXVI. Flat tile covering, two tiles long. Orientation east and west. No skeletal remains or grave furniture were found.

Grave 195. Pl. XXVI. Gabled tile covering, two tiles long. Orientation east and west. No skeletal remains or grave furniture were found.

Grave 196. Pls. XXVII and LIX, 14. Fig. 12, p. 59. *Enchytrismos*. Amphora lying on its side with the mouth to the east. Badly crushed. No skeletal remains or grave furniture were found. Late fifth or early fourth century B. C.

Grave 197. *Enchytrismos*. An amphora, part of a cover tile, and a deep black-glazed scyphus were found all mixed together. This may have been one or two graves. No skeletal remains were found.

Grave 198. *Enchytrismos*. Amphora lying on its side with the mouth to the west. No skeletal remains or grave furniture were found.

Grave 199. Cremation. In the center of a large area of charred matter and burnt earth was an amphora filled with black ashes. It was broken and burnt black on the outside. In the amphora was a black-glazed cantharus with a stamped design inside, Inv. 34. P. 185. First quarter of the fourth century B. C.

Grave 200. Fig. 12, p. 59. Unprotected burial of a child. Only fragmentary bones remained. Orientation uncertain, for the grave was somewhat disturbed. A bronze bracelet, *Olynthus*, X, no. 205.

and four bronze coins, *Olynthus*, VI, 121, *Olynthus*, IX, p. 300 (Bottiaean), and *Olynthus*, VI, 333, 390, 409, *Olynthus*, IX, p. 298 (Chalcidian), were found among the bones. Fourth century B. C.

Grave 201. Unprotected burial probably of an adult. At a depth of about 0.20 m. a bronze coin of Amyntas III, *Olynthus*, VI, 918, *Olynthus*, IX, p. 325 (381-369 B. C.), was found together with some bone fragments. Orientation uncertain. After 381 B. C.

Grave 202. Wooden coffin, indicated by iron nails scattered about the skeleton of an adult lying supine, head at the east, legs extended. Only the skull and legs were preserved. Beside the left knee was an alabastrum, buff with bands of black glaze, Inv. 31. P. 674. Between the thighs was a squat lecythus and beside the left knee was another. Fourth century B. C.

Grave 203. Pls. XXVII and LX, 38. *Enchytrismos*. Amphora lying on its side, mouth to the east. In the amphora, together with some bones of an infant, were a bronze bracelet, *Olynthus*, X, no. 201; two bronze earrings, *ibid.*, nos. 290, 291; and some bronze and clay beads, *ibid.*, no. 143. Fifth century B. C., probably last quarter.

Grave 204. Pl. XXVII. Fig. 12, p. 59. Gabled tile covering, two tiles long, with parts of tiles at both ends. The skeleton (b) of an adult lay supine, with the head at the east, the legs extended. It was much disintegrated. No grave furniture was found.

Grave 205. Pl. XXVII. Fig. 12, p. 59. Wooden coffin, indicated by iron nails about the skeleton of an adult lying supine, with the head at the east, arms at the sides, legs extended. No grave furniture was found.

Grave 206. Pl. XXVII. Fig. 12, p. 59. Flat tile covering, two tiles long. The skeleton (b) of an adult lay supine, with the head at the east, right arm at the side, left hand on the pelvis, legs extended. No grave furniture was found.

Grave 207. Pls. XXVII, XXVIII and LIX, 24. *Enchytrismos*. Amphora lying on its side, with the mouth to the west. The handles and upper part of the neck were missing. In it were the

skull and some other bones of the infant. No grave furniture was found. Fourth century B. C.

Grave 208. Pls. XXVIII and LIX, 18. *Enchytrismos*. Amphora lying on its side, with the mouth to the south. A large bowl covered the mouth. Most of the upper side was missing. No skeletal remains or grave furniture were found. Late fifth or fourth century B. C.

Grave 209. Pls. XXVIII and LIX, 18. *Enchytrismos*. Amphora lying on its side, with the mouth to the west. The neck and upper part of the body were missing. No skeletal remains or grave furniture were found. Late fifth or fourth century B. C.

Grave 210. Pl. XXVIII. Gabled tile covering, two tiles long, with parts of tiles at both ends supported by stones. The skeleton (b) of an adult lay supine, with the head at the east, arms at the sides, legs extended. It was very much disintegrated. At the south-west corner of the grave were a lamp, *Olynthus*, V, p. 274, no. 56, and a deep black-glazed scyphus. At the north-west corner were a broken lecythus and a two-handled bowl, *Olynthus*, V, 1019. Second quarter of the fourth century B. C.

Grave 211. Pl. XXVIII. Gabled tile covering, one tile long, with parts of tiles at both ends. The skull and leg bones of a child's skeleton (b) remained, lying with the head at the south, the legs extended. At the feet was a scyphus, *Olynthus*, V, 984, and in it an astragalus. By the knees were a bronze coin of the Chalcidians, *Olynthus*, VI, 192; *Olynthus*, IX, p. 298; a squat lecythus; two seated terracotta figurines; two terracotta female heads. Fourth century B. C.

Grave 212. Pl. XXVIII. Gabled tile covering, two tiles long. The skeleton of an adult lay supine, with the head at the east-south-east, quite disintegrated. No grave furniture was found.

Grave 213. Pl. XXVIII. Gabled tile covering, two tiles long, with part of a tile at the east end. The skeleton (b) of an adult lay supine, with the head at the east end, hands on the pelvis, legs extended. On the right thigh were a bronze coin of the Chalci-

dians, *Olynthus*, VI, 622; *Olynthus*, IX, p. 298; and a bronze swivel socket, *Olynthus*, X, no. 1299. Fourth century B. C.

Grave 214. Pl. XXIX. Gabled tile covering, two tiles long, with parts of tiles at both ends. The skeleton, with the head at the east-south-east, was almost entirely disintegrated. No grave furniture was found.

Grave 215. Pls. XXIX and LX, 26. *Enchytrismos*. Amphora lying on its side, with the mouth to the east. The whole top side and most of the neck were missing. A few small bones and a small black-glazed saucer were found in it. Fourth century B. C.

Grave 216. Pl. XXIX. Gabled tile covering, two tiles long. Very much broken. The skeleton of an adult lay supine, with the head at the east-south-east, arms at the sides, legs extended. No grave furniture was found.

Grave 217. Pl. XXIX. Flat tile covering, made of part of a cover tile, L. 0.49 m. Orientation east and west. No skeletal remains or grave furniture were found.

Grave 218. Pl. XXIX. Gabled tile covering, two tiles long, with part of a tile at the east end. The fragmentary skeleton (b) of an adult lay supine, with the head at the east, arms at the sides, with the right hand about 0.15 m. away from the pelvis, legs extended, with the knees touching but the feet spread apart. The skeleton was rather large, measuring 1.80 m. in length. In the mouth was a bronze coin of the Chalcidians, *Olynthus*, VI, 384; *Olynthus*, IX, p. 298. By the left knee was a shallow scyphus. Fourth century B. C.

Grave 219. Pl. XXIX. Fig. 12, p. 59. Gabled tile covering, two tiles long, with parts of tiles at both ends and cover tiles on the ridge. The skeleton (b) of an adult lay supine, with the head at the east-north-east, left arm at the side, right hand on the thigh, legs extended. On the pelvis were a plain black-glazed scyphus and a squat lecythus with a palmette design, both badly broken. Both fourth century types. Fourth century B. C.

Grave 220. Pl. XXXI. Gabled tile covering, two tiles long,

with parts of tiles at both ends. The skeleton of an adult lay supine, with the head at the east, arms at the sides, legs extended. The bones of the legs were fairly solid but only traces remained of the upper part of the skeleton. A trefoil lip oenochoe, Inv. 34. P. 76, similar to *Olynthus*, V, p. 37, vase P 60, was found outside of the south-west tile, where it was left when the pressure of the earth pushed the tile in. The grave was under grave 221. Late sixth or early fifth century B. C.

Grave 221. Wooden coffin, indicated by iron nails scattered about the skeleton. The skeleton of an adult lay supine, with the head at the east, legs extended, left arm at the side, right arm across the stomach. The head and the lower part of the legs were disintegrated. At the right side of the head were two squat lecythi, one with a net pattern, Inv. 34. P. VIa-2, the other with a palmette, Inv. 34. P. VI-3. Between the knees were another palmette lecythus, Inv. 34. P. VI-1; a bronze mirror, *Olynthus*, X, no. 515; and a little silver ring with three protuberances. At the left hand was a plain bronze ring, *Olynthus*, X, no. 931. The grave was over graves 220 and 222, and was later in date. Second quarter of the fourth century B. C.

Grave 222. Unprotected burial of an adult, lying supine with the head at the east, the legs extended. The head butted against the foot of grave 220 and was partly under grave 221. The skeleton was fragmentary. At the mouth was a bronze coin of the Chalcidians, Inv. 34. C. 527, *Olynthus*, IX, p. 222, no. 9. At the right shoulder was a terracotta donkey, Inv. 34. T. 247. The grave is later in date than grave 226. About the middle of the first half of the fourth century B. C.

Grave 223. Pl. XXX. Gabled tile covering, two tiles long, with part of a tile at the east end. Depth 0.65 m. The skeleton (b) of an adult lay supine, with the head at the east, arms at the sides, legs extended. Over the left shoulder was a bronze ring, *Olynthus*, X, no. 459. Fifth century B. C.

Grave 224. Pl. XXX. Gabled tile covering, two tiles long. Depth 0.75 m. The skeleton (b) of an adult lay supine, with the

head at the east, hands on the pelvis, legs extended. No grave furniture was found.

Grave 225. Cremation. In an area of charred matter were the remains of a disintegrated amphora, in and around which were fragments of charred bone. In the amphora were also two scyphi, Inv. 34. P. 60 and 34. P. 59, both of the fourth century, and part of a lecané cover. Second quarter of the fourth century B. C.

Grave 226. Gabled tile covering, one tile long, with part of a tile at the north-east end. Orientation north-east and south-west. The south corner was cut away for the placing of grave 222. No skeletal remains were found. Standing at the middle, outside of the north-west tile, was a small pitcher, Inv. 34. P. 129. Just outside of the north-east end tile was a two-handled bowl with cover, Inv. 34. P. 71 and 34. P. 72. In the center and toward the south-west end were two strigils, *Olynthus*, X, nos. 556, 557. Early fourth century B. C.

Grave 227. Pl. XXXI. Gabled tile covering, two tiles long, with part of a tile at the east end. Depth 1.05 m. Only the leg bones were preserved of the skeleton of an adult lying supine, with the legs extended, the head at the east. Along the inside of the thigh bone of the left leg was a strigil, *Olynthus*, X, no. 559. Over the head was a loomweight.

Grave 228. *Enchytrismos*. Fragments of an amphora remained, too much broken to tell its position. In it was a two-handled bowl, Inv. 34. P. 12. Fourth century B. C., probably middle of the first half.

Grave 229. Pl. XXX. Unprotected burial of an adult lying supine, with the head at the east, arms at the sides, legs extended. The skeleton was well preserved. Depth 0.90 m. Along the left thigh was a bronze strigil, *Olynthus*, X, no. 561.

Grave 230. Gabled tile covering, one tile long, with part of a tile at the east end. Orientation east and west. Depth 0.50 m. No skeletal remains were found. Toward the west end were a feeding bottle, Inv. 34. P. VII-5; a large, shallow, two-handled bowl with

inturned lip, Inv. 34. P. 115; a small scyphus or one-handled bowl, Inv. 34. P. XVa-9. Second quarter of the fourth century B. C.

Grave 231. Pl. XXXI. Unprotected burial of an adult lying supine, with the head at the south-east, arms at the sides, legs extended. Between the thighs were five astragali.

Grave 232. Pl. XXXI. Unprotected burial of an adult lying supine, with the head at the east-south-east, arms at the sides, legs extended. No grave furniture was found.

Grave 233. Cremation. Toward the east side of an area of charred matter and burnt earth was an amphora filled with charred matter and bones. In the ashes outside of the amphora were the following objects: two squat lecythi with palmette designs, Inv. 34. P. VI-2 and 34. P. VI-4; a coarse miniature scyphus, Inv. 34. P. 296; a two-handled bowl with cover, Inv. 34. P. 106; a small cover, Inv. 34. P. 305; a bronze mirror, *Olynthus*, X, no. 507; a metal ring with a heart-shaped pendant; 190 astragali. Second quarter of the fourth century B. C.

Grave 234. Pls. XXXI and LIX, 11. *Enchytrismos*. Amphora lying on its side, mouth to the east, a large slab of stone over the mouth and other stones propping up the sides. L. 0.69 m. Dm. 0.40 m. Depth 0.80 m. No skeletal remains were found. In the amphora, toward the mouth, were a shallow scyphus, Inv. 34. P. IV-5, and a miniature scyphus, Inv. 34. P. XV-4, of coarse clay. Outside of the mouth was a terracotta siren, Inv. 34. T. 242. Early fourth century B. C.

Grave 235. *Enchytrismos*. Amphora much broken and most of it missing. Orientation uncertain. In it were fragments of small bones, a cylix, Inv. 34. P. 239, and fragments of metal earrings. Last third of fifth century B. C.

Grave 236. Pl. XXXI. Fig. 7, p. 50; Fig. 12, p. 59. Gabled tile covering, two tiles long. The skeleton (b) of an adult lay supine, with the head at the east, arms at the sides, legs extended. No grave furniture was found.

Grave 237. Pl. XXXI. Fig. 7, p. 50; Fig. 12, p. 59. Gabled tile covering, two tiles long. The tiles had collapsed, one side over

the other, with very little earth between them. Only the right arm and the legs remained of the skeleton (b) of an adult lying supine with the head at the east, the arm at the side, the legs extended. Between the legs were twelve astragali and a flask with a head of Boreas in relief, *Olynthus*, VII, 392. Left of the thighs was a squat lecythus with a net pattern. Fourth century B. C.

Grave 238. A cover tile, broken in two, was placed half above and half below the corpse of an infant, and the bottom of an amphora was inverted over the east end. No skeletal remains or grave furniture were found.

Grave 239. Pl. XXXI. Fig. 7, p. 50; Fig. 12, p. 59. Gabled tile covering, one tile long, with part of a tile at the east end. The pressure of the earth had pushed the tiles in against the skeleton. The skeleton of a child, lying with its head at the east, was almost entirely disintegrated. Near the head was the base of a plastic vase. In the center were a large, black-glazed vase without handles, a seated female terracotta figurine, some astragali, and two bronze earrings, *Olynthus*, X, nos. 296, 297. Late fifth or fourth century B. C.

Grave 240. Pl. XXXII. Fig. 7, p. 50. The skeleton of an adult lay supine, with the head at the east and turned to the left, arms at the sides, legs extended. L. of skeleton 1.66 m. The face had been covered with a slab of stone 0.73 by 0.33 by 0.03 m. One end of the stone rested on the end of the trench and the other on the middle of the skeleton. This end had probably rested on a piece of wood placed across the trench with the ends supported by the sides of the trench. The wood rotted and the stone broke in two, so that when it was found the eastern part was standing almost erect. At the north side of the skeleton, and somewhat higher, was found a terracotta figurine, *Olynthus*, VII, 262. Fifth century B. C.

Grave 241. Gabled tile covering one tile long, with part of a tile at the east end supported by a stone, and a stone at the west end. A tile was laid with the concave side up under the corpse. No skeletal remains or grave furniture were found.

Grave 242. Pl. XXXII. Fig. 7; Fig. 12, p. 59. Gabled tile covering, one tile long. The fragmentary skeleton of a child lay supine, with the head at the east, legs extended. In the mouth were four bronze coins of the Chalcidians, *Olynthus*, VI, 172, 173, 174, 363; *Olynthus*, IX, p. 298. Fourth century B. C.

Grave 243. Fig. 12, p. 59. Gabled tile covering, two tiles long. The skeleton of an adult lay supine, with the head at the east. Only

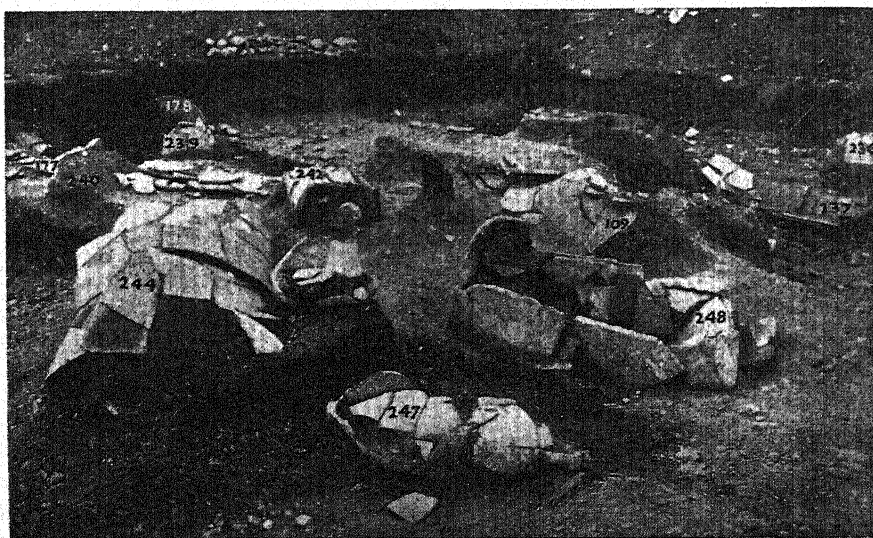


Fig. 7. A Group of Graves, to show how they were placed and found.
Looking north-west; see Fig. 12, p. 59.

fragments remained. At the left side was an oenochoe, *Olynthus*, V, 720. Fifth century B. C.

Grave 244. Pl. XXXII. Fig. 7; Fig. 12, p. 59. Gabled tile covering, two tiles long, with part of a tile at the east end. The east tile overlapped the west on the south side and the west overlapped the east on the north side. The tiles were unusually large, measuring 1.07 by 0.60 m. The skeleton (b) of an adult, of which only the arms and legs were preserved, lay supine, with the head at the east. To the right of the legs were a black-glazed one-handled bowl and a cantharus, *Olynthus*, V, 509. Between the thighs were a bronze strigil, *Olynthus*, X, no. 545, and a black-glazed scyphus. Second quarter of the fourth century B. C.

Grave 245. Pl. XXXII. Fig. 12, p. 59. Gabled tile covering, two tiles long, with parts of tiles at both ends. Only the legs remained of the skeleton (b) of an adult, lying supine with the head at the east. No grave furniture was found.



Fig. 8. Red-figured Hydria used as Burial Urn in Grave 246.

Grave 246. Pl. XXXII (as found, before cleaning). Cremation. A beautiful red-figured hydria (Fig. 8), *Olynthus*, V, 145, Pls. 91-92, with scenes from an Amazonomachy (cf. also *A.J.A.*, XXXVI, 1932, p. 125, Pl. V, 1), was standing erect, filled with calcined bones. No indication of fire was noticed at the site. Outside, near the mouth, was a bronze coin of the Chalcidians, *Olynthus*, VI, 518; *Olynthus*, IX, p. 298. Fourth century B. C.

Grave 247. Pls. XXXII and LIX, 1 and 11. Fig. 7, p. 50; Fig. 12, p. 59. *Enchytrismos*. Two amphorae lay on their sides, mouths to the east, the upper part of one removed and the lower part of the other. They were then placed with the broken parts together, and

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the foot of the head-end amphora covered over the join. The corpse was evidently too large for one vase. The only skeletal remains found were two teeth. In the amphora was a plain bronze finger-ring, *Olynthus*, X, no. 495. Late fifth century B. C.

Grave 248. Pl. XXXIII. Fig. 7, p. 50; Fig. 12, p. 59. Fragmentary bones remained of a child lying, with the head at the east, on a roof tile, and covered with a broken bath tub inverted. The bottom of the tub had been broken in antiquity and was covered by pieces of roof tile. At the place where each hand had been, probably worn on the wrists, was a bronze bracelet with snake-head ends, *Olynthus*, X, nos. 185 and 204. By the legs were a bronze strigil, *Olynthus*, X, no. 541, and a red-figured lecythus, *Olynthus*, V, 249. Early fourth century B. C.

Grave 249. Pl. XXXIII. Fig. 12, p. 59. The skeleton (Fig. 9) of an adult lay supine, with the head at the east, the left hand at the side, the right hand on the pelvis, the legs extended. At either side of the upper part of the body was a stone, measuring about 0.70 by 0.34 by 0.06 m., standing on edge, 0.45 m. between the two. At the feet was a somewhat smaller stone, about 0.43 by 0.15 by 0.11 m. All were flat on the upper edge, and those by the head rose about 0.32 m. above the bottom of the grave. They were probably supports for a wooden cover. At the left side of the head was a one-handled bowl (Fig. 9), *Olynthus*, V, 901. Fourth century B. C.

Grave 250. Fig. 12, p. 59. Pl. XXXIII. Wooden coffin, indicated by iron nails, two standing upright just beyond the head. The skeleton of an adult lay supine, with the head at the east, arms at the sides, legs extended. L. of skeleton 1.81 m. No grave furniture was found.

Grave 251. Unprotected burial of an adult lying supine, with the head at the west. Only the legs remained and they were very much disintegrated. By the legs were a squat lecythus, *Olynthus*, V, 252, and three terracotta figurines, Inv. 31. T. 217-219. Fourth century B. C.

Grave 252. Pl. LIX, 12. Fig. 12, p. 59. *Enchytrismos*. Amphora lying on its side, mouth to the west, much broken and most



Fig. 9. Grave 249.

of it missing. No skeletal remains or grave furniture were found. Late fifth or fourth century B. C.

Grave 253. *Enchytrismos*. Amphora lying on its side with the mouth to the north. In it were a few bone fragments of an



Fig. 10. Grave 254.

infant and a miniature Corinthian scyphus, Inv. 31. P. 426, similar to one found in grave 275; cf. *Olynthus*, V, 2. Late fifth or fourth century B. C.

Grave 254. Pl. XXXIII. Wooden coffin indicated by five iron

nails standing with points up, two at the south-east, two at the south-west, and one at the north-east corner. L. of coffin, between nails, 0.90 m. W. 0.40 m. Only fragments remained of a child's skeleton, lying with the head at the east. Outside of the right leg (Fig. 10) were a bronze bracelet, *Olynthus*, X, no. 183; a cothon, *Olynthus*, V, 1064; and a terracotta rooster, *Olynthus*, VII, 354. Outside of the left thigh were two terracotta satyrs, *Olynthus*, VII, 324 and 328. At the right foot were two terracotta Erotes, *Olynthus*, VII, 267 and 271, a small saucer, and two astragali. At the left hand was a silver finger-ring with an inscription in gilt letters, $\delta\omega\rho\alpha$, *Olynthus*, X, no. 474. Fourth century B. C.

Grave 255. Unprotected burial of a child, lying with the head at the east. Fairly well preserved for a child. L. 1.03 m. No grave furniture was found.

Grave 256. Cremation. In an area of charred matter were a small saucer and a vase with a cover. No skeletal remains were found. Probably fourth century B. C.

Grave 257. Pl. XXXIII. Gabled tile covering, two tiles long, with part of a tile at the east end. The skeleton of an adult lay supine, with the head at the east end, arms at the sides, legs extended. By the left thigh was an iron strigil as if it had been held in the left hand, *Olynthus*, X, no. 565. Also in this grave was part of a bronze mirror, *Olynthus*, X, no. 508. Fourth century B. C.

Grave 258. Pl. XXXIII. *Enchytrismos*. Amphora lying on its side, with the mouth to the west. No skeletal remains or grave furniture were found.

Grave 259. Unprotected burial of an adult, of which only a few bones were found. Orientation uncertain. No grave furniture was found.

Grave 260. Cremation. In an area about 0.60 by 0.90 m. of charred matter mixed with calcined bones were fragments of a large amphora. Amid the fragments was a scyphus, *Olynthus*, V, 975, as if it had been in the amphora. It was not burnt. About the middle of the first half of the fourth century B. C.

Grave 261. Pl. XXXIV. Amphora standing upright with a large flat stone over the mouth. In it were a few fragments of bone. No grave furniture was found.

Grave 262. Pl. XXXIV. Amphora lying on its side, with the mouth to the east. It was crushed by a large stone, which had apparently covered the mouth. No skeletal remains were found. By the foot was an astragalus. By the neck were fragments of a small saucer and a seated terracotta figurine. End of fifth or fourth century B. C.

Grave 263. Unprotected burial of an adult. Only a few bones were found. Orientation unknown. With the bones was a black-figured lecythus, *Olynthus*, V, 28.

Grave 264. Pl. XXXIV. Wooden coffin, indicated by large iron nails lying in a line parallel with the body, *Olynthus*, X, nos. 1530-1532. The skeleton of an adult lay supine with the head at the east. At the feet were a pyxis with cover, *Olynthus*, V, 201; a pitcher, *Olynthus*, V, 840; eight bronze tacks in a small area, evidently from a disintegrated object, *Olynthus*, X, nos. 1465-1472; iron spikes; and a pyramidal loomweight. On the pelvis was an iron strigil, lying with the handle to the right, *Olynthus*, X, no. 539. On the thigh was a squat lecythus, *Olynthus*, V, 438. At the right hand was a plain bronze finger-ring, *Olynthus*, X, no. 903. Early in the second quarter of the fourth century B. C.

Grave 265. Flat tile covering, one tile long. Orientation east and west. No skeletal remains or grave furniture were found.

Grave 266. Pl. XXXIV. Wooden coffin, indicated by three iron nails standing with the points up in a line on the south side of the skeleton of a child, of which only traces remained. It was lying supine with the head at the east. The grave was above grave 267. In the grave were two squat lecythi, *Olynthus*, V, 477 and 478; a cothon, *Olynthus*, V, 1065; two terracotta Erotes, *Olynthus*, VII, 265 and 266, and fragments of another; a bronze rattle, *Olynthus*, X, no. 2561; a bronze strigil, inscribed *Σωσίον*, *ibid.*, no. 520 a and b; and a bronze bracelet, *ibid.*, no. 186. Fourth century B. C.

Grave 267. Pl. XXXIV. Directly under grave 266 was a coffin made of stone slabs. The stones at the sides measured 0.99 by 0.38 by 0.06 m. The one at the head was 0.26 by 0.38 by 0.06 m. That at the foot was 0.20 by 0.38 m. and was left round on the outside. The cover (Fig. 11) measured 1.36 by 0.42 by 0.06 m. There was no stone in the bottom. In the coffin was the fragmentary skeleton of a child, lying with head at the east. It was lying at a depth of 0.27 m. from the top of the coffin. L. 0.87 m. At either

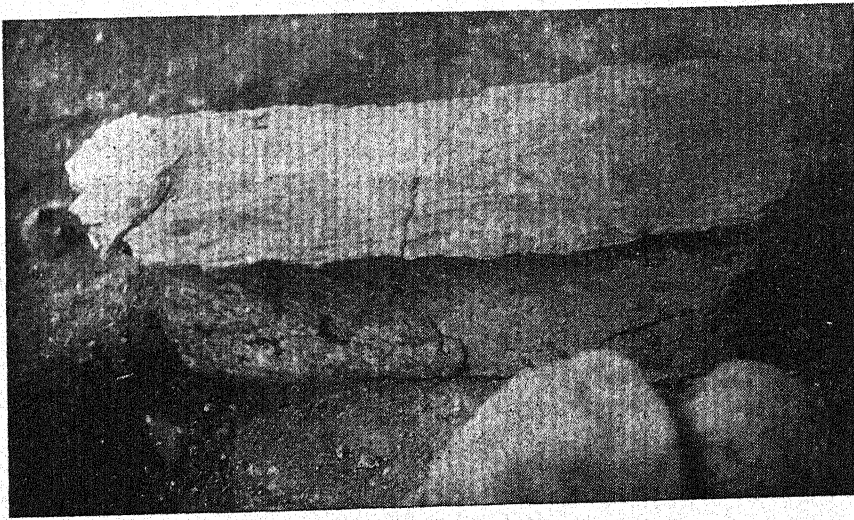


Fig. 11. Grave 267.

side of the skull was a bronze earring, *Olynthus*, X, nos. 279, 280. By the right hand were two astragali, and a bracelet, *ibid.*, no. 188. Fifth century B. C. or possibly late sixth.

Grave 268. Pl. XXXIV. Wooden coffin, indicated by iron nails standing erect on their heads around the skeleton. The skeleton of a child, of which only traces remained, lay with head at the east, directly against the foot end of the stone sarcophagus of grave 267. By the left leg was a pitcher, *Olynthus*, V, 748, and scattered through the grave were 70 astragali. Late fifth or early fourth century B. C.

Grave 269. Cremation. In an area of charred matter about 1.00 by 2.00 m. were fragments of calcined bones intermixed with

fragments of black-glazed pottery and a fragment of a bronze bracelet, Inv. 31. B. 610.

Grave 270. *Enchytrismos*. Amphora lying on its side, mouth at the west. Badly broken. No skeletal remains or grave furniture were found.

Grave 271. *Enchytrismos*. Large coarse hydria lying on its side, mouth to the west. It was crushed by a large stone which had apparently been used to cover the mouth. No skeletal remains or grave furniture were found.

Grave 272. Cremation. In an area about one meter in diameter was a fragmentary burnt amphora containing much burnt bone and a scyphus, *Olynthus*, V, 978, in which was a squat lecythus, *Olynthus*, V, 416, and a coarse one-handled bowl in which was a small saucer. First quarter of fourth century B. C.

Grave 273. Pls. XXXV and LX, 32. *Enchytrismos*. Amphora inclining about 45 degrees toward the east. L. 0.51 m., Dm. 0.42 m. Depth 0.60 m. No skeletal remains were found. In the amphora were a small head carved of bone; a bronze bracelet with snake-head ends, *Olynthus*, X, no. 221; an "eye" bead, blue on yellow, Inv. 34. ms. 40; and a plain bronze ring, *Olynthus*, X, no. 934. Late fifth or early fourth century B. C.

Grave 274. Pl. XXXV. Gabled tile covering, two tiles long, with part of a tile at the east end. The tiles on the north side were propped by a triangular piece of tile placed on the thigh of the skeleton (b). Two tiles were placed under and two over the corpse. The skeleton of an adult lay supine with the head at the east, arms at the sides, legs extended. Between the thighs, and resting against the triangular piece of tile, was a black-glazed pitcher.

Grave 275. Pl. LX, 28. *Enchytrismos*. A long amphora was lying on its side, mouth at the east, covered by a stone. L. of amphora 0.84 m. It contained the skeleton of a small child lying with head toward the mouth, and the following objects: a Corinthian scyphus, *Olynthus*, V, 2; another similar; and two terracotta

figurines which disintegrated in cleaning. Beads were scattered throughout the amphora. Fourth century B. C.

Grave 276. Pls. XXXV and LIX, 10. Fig. 12. *Enchytrismos*. Amphora lying on its side, mouth at the east. No skeletal remains or grave furniture were found. Fifth century B. C.



Fig. 12. Part of Riverside Cemetery toward north, showing how graves were placed when excavated. See also Fig. 7, p. 50.

Grave 277. *Enchytrismos*. Fig. 12. Amphora lying on its side, mouth at the west. No skeletal remains or grave furniture were found.

Grave 278. Pl. XXXV. Fig. 12. Cremation. A charred area about 1.00 by 2.00 m. contained charred fragments of bone and of a coarse amphora and the following, all burnt: two standing female terracotta figurines, *Olynthus*, VII, 172 and 173; a scyphus; and pieces of rusted iron. Fifth century B. C.

Grave 279. *Enchytrismos*. The beautiful column crater, *Olynthus*, V, 105a, with a scene of four figures at a libation, dating ca. 450 B. C., was found too much broken to be certain whether

it was standing or lying on its side when buried. No skeletal remains or grave furniture were found with it. Second half of the fifth century B. C.

Grave 280. Gabled tile covering, two tiles long. Orientation east and west. Though no skeletal remains were found, the head was probably at the east, for toward the west end were two amphorae, one containing a small black-glazed dish, and a two-handled bowl with a cover, *Olynthus*, V, 1021. Left of the center was a bronze strigil, *Olynthus*, X, no. 521. Fourth century B. C.

Grave 281. Pls. XXXV and LIX, 17. Fig. 12, p. 59. *Enchytrismos*. Amphora lying on its side, mouth at the west. The body of the amphora was whole, but parts of the shoulder were missing. No skeletal remains or grave furniture were found. End of fifth or early fourth century B. C.

Grave 282. Pl. XXXV. Fig. 12, p. 59. Gabled tile covering, two tiles arched together. L. 0.98 m., H. 0.40 m., W. 0.34 m. Orientation east and west. The tiles were propped up by two stones under their edges at the east end and one at the west. No skeletal remains or grave furniture were found. Possibly a cenotaph.

Grave 283. Pl. XXXV. Fig. 12, p. 59. *Enchytrismos*. A large coarse hydria was lying on its side, mouth at the west. It was quite broken. In it were the skull and a few other bones of a child. The skull was larger than the mouth of the hydria, another proof that the vase was broken to insert the body. The fact that the skeleton was too large for a new born baby proves that it was not an infant exposure. No grave furniture was found.

Grave 284. Pls. XXXVI and LIX, 17. Fig. 12, p. 59. *Enchytrismos*. Amphora lying on its side, mouth at the west, with a large stone against it. Another large stone against the foot. Only the skull of a child was preserved, lying near the foot end, indicating that it was inserted head first. It was too large to go through the neck. No grave furniture was found. End of fifth or early fourth century B. C.

Grave 285. *Enchytrismos*. Amphora lying on its side, mouth at the east. Badly broken. No skeletal remains or grave furniture.

Grave 286. *Enchytrismos*. Amphora lying on its side, mouth at the west. Most of the top side was missing. No skeletal remains or grave furniture were found.

Grave 287. Pl. XXXVI. Gabled tile covering, two tiles long, with part of a tile at the east-north-east end. The foot end was under grave 288. The skeleton of an adult lay supine, with the head at the east-north-east, arms at the sides, legs extended. No grave furniture was found.

Grave 288. Pl. XXXVI. Unprotected burial of an adult lying supine with the head at the east-south-east, arms at the sides, legs extended. The body was over the legs of grave 287. In the mouth were four bronze coins of the Chalcidians, *Olynthus*, VI, 416, 434, 611, and 702, *Olynthus*, IX, p. 298. Fourth century B. C.

Grave 289. Unprotected burial. Only traces of bones were found. Age and orientation uncertain. With the bones were the following objects: black-figured lecythus, *Olynthus*, V, 29; amphora, *Olynthus*, V, 651; scyphus, *Olynthus*, V, 946; glass amphoriscus, *Olynthus*, V, 1124; two standing female terracotta figurines, *Olynthus*, VII, 157 and 263; and a boy with astragali, *Olynthus*, VII, 282, cf. *Clara Rhodos*, IV, 1931, p. 334, fig. 370 for a similar one; bronze bracelet with snake-head ends, *Olynthus*, X, no. 181; bronze knob, Inv. 31. B. 130; clay beads and round bone knob, Inv. 31. B. 129. Late fifth or early fourth century B. C.

Grave 290. Pl. XXXVI. Child's grave made with half of a cover tile below and half above the corpse and a piece of tile at each end. Orientation east and west. No skeletal remains were found. In it was found a small saucer. End of fifth or fourth century B. C.

Grave 291. Gabled tile covering, two tiles long, with part of a tile at the west end and two large stones at the east end. The skeleton of an adult, much disintegrated, lay supine, with the head at the east. In the grave was a one-handled bowl, plain black-glaze.

Grave 292. Gabled tile covering, one tile long, with part of a tile at the east end. Orientation east and west. No skeletal remains

were found; the grave contained only a bronze bracelet with snake-head ends, *Olynthus*, X, no. 192.

Grave 293. Pls. XXXVI and LIX, 5. *Enchytrismos*. Amphora lying on its side, mouth at the east. The break at the shoulder is clearly indicated, and when the shoulder was replaced it was placed with the neck into the body of the amphora. L. 0.49 m. Dm. 0.47 m. Depth 0.25 m. No skeletal remains or grave furniture were found. Fifth century B. C.

Grave 294. Pl. LX, 48. *Enchytrismos*. A large barrel-like vessel, L. 0.55 m., Dm. about 0.45 m., lay on its side with the mouth to the south-east. No skeletal remains were found. In it was only a miniature Corinthian scyphus, Inv. 34. P. XVa-3. Fifth or fourth century B. C.

Grave 295. Pl. XXXVI. Gabled tile covering, two tiles long, with two large stones at the east end and the tiles propped up by a stone on the inside at the shoulder. Another stone lay on the tiles at the east end. The skeleton (b) of an adult, probably male, lay supine, with the head at the east, arms at the sides, legs extended. By the left hand was a bronze ring with an intaglio design representing Hermes putting on his winged sandals, *Olynthus*, X, no. 460, and part of a bronze bracelet, *ibid.*, no. 225.

Grave 296. Gabled tile covering, two tiles long, with parts of tiles at both ends. Depth 1.00 m. The skeleton of an adult lay supine, head at the east, arms at the sides, legs extended. It had almost entirely disintegrated. No grave furniture was found.

Grave 297. Gabled tile covering, one tile long, with part of a tile at the east end. The tiles were very fragmentary and the west end was entirely missing. No skeletal remains or grave furniture were found.

Grave 298. Unprotected burial probably of a child. Only the following objects were found: two bronze coins of the Chalcidians, Inv. 34. C. 441 and 442, *Olynthus*, IX, p. 222, nos. 6 and 9; a bronze bracelet with snake-head ends, *Olynthus*, X, no. 217; and a plain bronze ring, *ibid.*, no. 928. Apparently the head was at the east,

for the coins were found about 0.50 m. east of the bracelet and ring. No skeletal remains were found. Fourth century B. C.

Grave 299. Pls. XXXVI and LIX, 12. *Enchytrismos*. Amphora lying on its side, mouth to the south-east. Depth 0.90 m. In the amphora were fragments of small bones; a miniature Corinthian scyphus, Inv. 34. P. XVa-1; and a bronze bracelet with snake-head ends, *Olynthus*, X, no. 222. On top of the amphora were two bronze coins, one of Potidaea, Inv. 34. C. 368, *Olynthus*, IX, p. 226, the other defaced, Inv. 34. C. 370. Fourth century B. C.

Grave 300. Cremation. In a large area of charred matter were a large iron nail, a one-handled bowl, Inv. 34. P. V-4, and a cylix, Inv. 34. P. 68. Middle of the fifth century B. C.

Grave 301. Pl. XXXVII. Gabled tile covering, one tile long, with part of a tile at the east end and a tile under the skeleton. The skeleton of a child lay with head at the east, only traces remaining. Depth to tiles 0.70 m. At the center of the grave were six astragali (b), and toward the head and the foot were two bronze bracelets with snake-ends, *Olynthus*, X, nos. 210 and 236.

Grave 302. Gabled tile covering, one tile long, with parts of tiles at both ends. Depth 0.60 m. Only fragments remained of a child's skeleton lying supine with the head at the south-east. At the right thigh was a bronze strigil, *Olynthus*, X, no. 558, and near it were fifteen astragali.

Grave 303. Cremation. In an area of ashes and charred matter was an amphora filled with ashes and charred bones. Within the area were three scyphi, Inv. 34. P. I-21, 34. P. I-22, and 34. P. I-10; a squat lecythus with palmette design, Inv. 34. P. VI-5; a flat two-handled dish with cover, Inv. 34. P. 294; and an archaic female mask, Inv. 34. T. 227. Fourth century B. C.

Grave 304. Pl. XXXVII. Gabled tile covering, one tile long with a flat stone on the west end to cover the feet of the deceased. Orientation east and west. Length of grave 1.52 m. Depth 0.80 m. No skeletal remains were found. Under the stone were an astragalus, an iron nail, and a squat, ribbed lecythus, Inv. 34. P. 152. Late fifth or early fourth century B. C.

Grave 305. Pl. XXXVII. Gabled tile covering, two tiles long, with two tiles laid flat over the skeleton, and a large stone at the east end. The skeleton (b) of an adult lay supine, with the head at the east, arms at the sides with the fingers on the pelvis, legs extended. On the ribs, where they had evidently fallen from the mouth, were four bronze coins of the Chalcidians, *Olynthus*, VI, 195, 221, 222, 223; *Olynthus*, IX, p. 298. Fourth century B. C.

Grave 306. Unprotected burial of an adult or adolescent with the head at the south-east. The skeleton was almost all disintegrated. Between the legs was a scyphus, Inv. 34. P. I-1. At the feet were a squat lecythus, Inv. 34. P. 151, and a shallow scyphus, Inv. 34. P. IV-10. Fourth century B. C., probably early in second quarter.

Grave 307. Pls. XXXVII and LIX, 17. *Enchytrismos*. Amphora lying on its side with the mouth to the north-east. L. 0.68 m. Depth 0.75 m. No skeletal remains were found. On top of the amphora was a feeding bottle, Inv. 34. P. VII-1. In the amphora were a bronze bracelet and a bunch of small green paste beads, Inv. 34. ms. 9. Fourth century B. C.

Grave 308. Cremation. In an amphora, fragmentary when found, was a red-figured pelice in which were bones, apparently human. The pelice, Inv. 34. P. 113, similar to *Olynthus*, V, nos. 282-285a, was broken, and many of the bones had fallen out and were found in and around it. The mouth of the pelice had been covered with a bronze mirror, *Olynthus*, X, no. 516. In the pelice among the bones was a silver coin of uncertain Macedonian origin, Inv. 34. C. 337, *Olynthus*, IX, p. 229, no. 3. There was no sign of fire.

Grave 309. Pl. XXXVIII. Gabled tile covering, two tiles long, with parts of tiles at both ends and cover tiles on the ridge. Depth 0.95 m. The skeleton of an adult lay supine, head at the south-east, arms at the sides, legs extended. Between the legs was a shallow bowl, Inv. 34. P. XIV-2, in which was a round-bottomed pitcher of the pre-Persian Olynthian type, Inv. 34. P. 121. Above these was the base of a scyphus with a net pattern, Inv. 34. P. I-13, similar to the scyphus, Inv. 34. P. I-21, in grave 303. End of fifth or fourth century B. C.

Grave 310. Pls. XXXVIII and LIX, 8. *Enchytrismos*. Amphora lying on its side with the mouth at the east. L. 0.61 m. Dm. 0.51 m. Depth 0.60 m. No skeletal remains or grave furniture were found. Late fifth or fourth century B. C.

Grave 311. Pl. XXXVIII. Gabled tile covering, two tiles long, with parts of tiles at both ends. Depth 0.65 m. The skeleton (b) of an adult lay supine, head at the east, arms at the sides, legs extended. On the middle of the skeleton was a bronze strigil with the handle to the left, *Olynthus*, X, no. 562. On the strigil was a bronze ring, Dm. 0.014 m., *Olynthus*, X, no. 930.

Grave 312. Pl. XXXVIII. Wooden coffin, indicated by two iron nails, one at the head and one at the foot. The skeleton of an adult lay supine, head at the east, arms at the sides, legs extended. Length from head to ankles 1.56 m. Between the thighs was a large black-glazed oenochoe.

Grave 313. Pl. XXXVIII. Unprotected burial of an adult lying with the head at the east. Only a few bones of the legs remained. With them was a large plain vase without handles.

Grave 314. Pl. XXXVIII. Wooden coffin, indicated by a few iron nails around the fragments of the skeleton of an adult. Orientation uncertain. With the bones were 26 astragali and a black-figured lecythus, *Olynthus*, V, 32. End of sixth or early fifth century B. C.

Grave 315. Unprotected burial of an adult. Orientation uncertain. Only a few bones of the legs remained. With them was a black-figured lecythus, *Olynthus*, V, 33. End of sixth or early fifth century B. C.

Grave 316. Cremation. In an area of charred matter and burnt earth was an amphora, charred and fragmentary, containing fragments of calcined bone and a scyphus, Inv. 34. P. I-2. Fourth century B. C., probably second quarter.

Grave 317. Pl. XXXIX. *Enchytrismos*. Amphora lying on its side, mouth at the west. Depth 0.60 m. No skeletal remains were found. In the amphora was a small unglazed bowl, Inv. 34. P. 219.

Grave 318. Unprotected burial of a child lying with head at the east. Only a few fragments remained. With them were the following terracotta figurines: peacock, Inv. 34. T. 156; seated silenus, Inv. 34. T. 182, similar to *Olynthus*, VII, 328; satyr riding on an ass, Inv. 34. T. 179, similar to *Olynthus*, VII, 330 and 331; reclining satyr, Inv. 34. T. 187, similar to *Olynthus*, VII, 323. Fourth century B. C.

Grave 319. Pl. XXXIX. *Enchytrismos*. Amphora lying on its side with the mouth at the east. In the center were a few bones and a plain bronze ring, *Olynthus*, X, no. 839. At the lower end was a bronze bracelet with snake-head ends, *Olynthus*, X, no. 202.

Grave 320. Pl. XXXIX. Unprotected burial of an adult lying supine, head at the south, arms at the sides, legs extended. Depth 0.60 m. It was very well preserved. L. 1.57 m. No grave furniture was found.

Grave 321. Cremation. In an area of charred matter, ashes, and burnt earth at a depth of 0.40 m. were the following vases: cantharus, Inv. 34. P. 15; mesomphalic phiale, Inv. 34. P. 13; squat lecythus, Inv. 34. P. 5; oenochoe, Inv. 34. P. 17; shallow scyphus, Inv. 34. P. 16; pyxis, Inv. 34. P. 18. Second quarter of fourth century B. C.

Grave 322. Gabled tile covering, one tile long, with part of a tile at the east end. Depth to tiles 0.30 m. Only traces of a child's skeleton remained, lying with head to the east. With it was a small fragment of bronze.

Grave 323. *Enchytrismos*. Amphora lying on its side with the mouth at the east. L. 0.65 m. Dm. 0.42 m. No skeletal remains or grave furniture were found.

Grave 324. Pl. XXXIX. Gabled tile covering, one tile long, with parts of tiles at both ends. Depth to tiles 0.70 m. The skull and legs remained of a child's skeleton, lying with the head at the east. L. 0.87 m. On the middle of the skeleton, where they evidently had fallen from the mouth, were four bronze coins, Inv. 34. C. 5, defaced; 34. C. 6 and 7, Chalcidian, *Olynthus*, IX, p. 224, no. 16, and p. 225, no. 21; and 34. C. 8, of Scione, *Olynthus*, IX, p. 227, no. 3. Fourth century B. C.

Grave 325. Pl. XXXIX. Flat tile covering, two tiles long. Depth 0.35 m. The skeleton of an adult lay supine, head at the east-north-east, hands on the pelvis, legs extended. At the left hand was a bronze ring, *Olynthus*, X, no. 484. Fourth century B. C.

Grave 326. Pls. XXXIX and LIX, 8. *Enchytrismos*. Amphora lying on its side with the mouth at the south-east. L. 0.55 m. Dm. 0.49 m. Depth 0.60 m. No skeletal remains or grave furniture were found. Late fifth or fourth century B. C.

Grave 327. Gabled tile covering, one tile long. It had collapsed to the north-east. Depth 0.80 m. The skeleton of a child, length about a meter, lay supine, head at the south-east, arms at the sides, legs extended. At the feet were two small bronze rings, *Olynthus*, X, nos. 932, 933, probably from the shoes. Between the legs were 23 astragali. Over the left shoulder was a small sea shell.

Grave 328. *Enchytrismos*. Amphora lying on its side with the mouth at the south-east, covered by a small bowl. L. 0.66 m. W. 0.48 m. Depth 0.52 m. No skeletal remains were found. In the amphora were a seated female terracotta figurine (*kourotrophos*), Inv. 34. T. 11, similar to *Olynthus*, VII, 252; a lecanium with cover, Inv. 34. P. 1; and a Bottiaean bronze coin of the Chalcidians, Inv. 34. C. 21, *Olynthus*, IX, p. 225, no. 21. Outside of the amphora were a sitting figure with a Phrygian cap, Inv. 34. T. 45, fragments of another, and six astragali. Fourth century B. C.

Grave 329. Pl. XL. Gabled tile covering, two tiles long, with parts of tiles at both ends. Depth 0.70 m. Only a few traces remained of the skeleton of an adult, lying with the head at the east. By the right arm was a one-handled bowl, Inv. 34. P. V-5. Fifth century B. C.

Grave 330. Pl. XL. Flat tile covering, two tiles long. Depth 0.60 m. The tiles were much disintegrated. Only the legs remained of the skeleton of an adult, lying supine, head at the east. No grave furniture was found. Earlier than grave 331.

Grave 331. Pl. XL. Gabled tile covering, two tiles long, partly over graves 330 and 332. The fragmentary skeleton (b) of an adult was lying supine with the head at the east. In the mouth was a

bronze coin of the Chalcidians, Inv. 34. C. 207, *Olynthus*, IX, p. 225, no. 21. Fourth century B. C.

Grave 332. Pl. XL. Flat tile covering, one tile long. Partly under the feet of grave 331. Fragments remained of the skeleton of a child, lying with the head at the east, against the feet of grave 330. It is not certain whether grave 330 or 332 is the earlier. On the chest were two beads, one a white and red stone, Inv. 34. ms. 7, and the other an "eye" bead, *Olynthus*, X, no. 2669.

Grave 333. Gabled tile covering, one tile long, with a stone slab at the east end. Depth 0.60 m. A few traces remained of the skeleton of a child, lying with the head at the east. At the legs were ten astragali.

Grave 334. Pl. XL. Gabled tile covering, two tiles long, with parts of tiles at both ends. Depth 0.45 m. The much disintegrated skeleton of an adult lay supine with the head at the east. No grave furniture was found.

Grave 335. Pl. XLI. Wooden coffin, indicated by six iron nails, two to the right of the head, one to the left, near the jaw, two on top of the right side of the pelvis, and one on the left. Apparently the corpse had fallen through the bottom of the coffin, which then caved in on the corpse and rotted. The skeleton of an adult lay supine with the head at the east, the arms at the sides, with the right hand on the pelvis, the legs extended. In the mouth was a small silver coin of Thebes (with Boeotian shield and amphora), Inv. 38. C. 165. Fourth century B. C.

Grave 336. Pl. XL. Gabled tile covering, two tiles long, with parts of tiles at both ends. Depth 0.60 m. Fragments of the skeleton of an adult lying with the head at the east were found. It was destroyed by stones and roots. Where the head had been was a bronze coin of the Chalcidians, Inv. 34. C. 197, *Olynthus*, IX, p. 222, no. 9. Fourth century B. C.

Grave 337. Gabled tile covering, two tiles long, with parts of tiles at both ends. Depth 0.70 m. The skeleton of an adult lay supine with the head at the east, arms at the sides, legs extended. No grave furniture was found.

Grave 338. Pl. XLI. Gabled tile covering, two tiles long. Depth to tiles 0.60 m. The skeleton of an adult lay supine with the head at the south-east, arms at the sides, legs extended. The head was missing. The shoulders and knees were bent slightly to the right. No grave furniture was found.

Grave 339. Pl. XLI. Gabled tile covering, two tiles long, with parts of tiles at both ends. Depth 0.65 m. The skeleton of an adult lay supine with the head at the east, arms at the sides, legs extended. At the north side of the grave, on the outside, were a one-handled bowl, Inv. 34. P. 3, and a squat lecythus with a palmette design, Inv. 34. P. 4. Second quarter of fourth century B. C.

Grave 340. Pl. XLI. Unprotected burial of an adult lying supine with the head at the east, arms at the sides with the left hand on the pelvis, legs extended. No grave furniture was found.

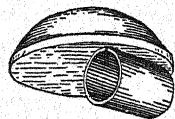


Fig. 13. Silver Button from Grave 341.
Twice Original Size.

Grave 341. Pl. LIX, 12. *Enchytrismos*. Amphora lying on its side with the mouth at the east, with stones propping up the sides and one over the mouth. L. 0.60 m. No skeletal remains were found. In the amphora were two small black stone cubes, about 0.003 m. square, probably dice with the dots painted on with white paint, traces of which were noticed, and a silver button (Fig. 13), Inv. 38. ms. 92. The button, 0.011 m. in diameter and 0.004 m. high, was made of thin sheet silver, the top cupped and the bottom flat with a small flange rolled over the edge of the top. A small loop was soldered to the bottom. Late fifth or fourth century B. C.

Grave 342. Unprotected burial of an adult, lying supine, with the head at the east, at a depth of about 0.25 m. It was very fragmentary. With it were a few small pieces of black-glazed pottery, probably a scyphus.

Grave 343. Pl. XLI. Cf. also *A.J.A.*, XXXIX, 1935, p. 227, Fig. 22. Tile cist made of nine roof tiles. The trench in which the corpse was placed was lined with two tiles on either side and half a tile at each end, and covered with four tiles laid crosswise. L. 1.89 m. W. 0.53 m. Depth 1.15 m. The skeleton of an adult lay supine with the head at the south, arms at the sides, legs extended. No grave furniture was found in the grave, but above it at a depth of 0.35 to 0.45 m. were a feeding bottle, Inv. 34. P. VII-4; a two-handled bowl, Inv. 34. P. II-1; and three bronze bracelets with snake-head ends, *Olynthus*, X, nos. 209, 215, 220. These may be from a later grave the skeleton of which had disintegrated. Fifth century B. C.

Grave 344. Flat tile covering, one tile long, very fragmentary. Orientation south-east and north-west. No skeletal remains or grave furniture were found.

Grave 345. Flat tile covering, two tiles long. Only a few bone fragments remained of the skeleton of an adult lying, with the head at the south, at a depth of 0.60 m. No grave furniture was found.

Grave 346. Pl. LIX, 14. *Enchytrismos*. Amphora lying on its side, mouth at the west. L. 0.56 m. Dm. 0.44 m. Depth 0.40 m. No skeletal remains or grave furniture were found. Late fifth or early fourth century B. C.

Grave 347. Pl. XLII. Gabled tile covering, two tiles long, with part of a tile at the south-east end and a large stone at the north-west end. Depth 0.95 m. Directly over burials 5 and 6 of grave 348. The skeleton (b) of an adult lay supine, head at the south-east, arms at the sides with the hands on the pelvis, legs extended. No grave furniture was found. Late fifth or fourth century B. C.

Grave 348. Pl. XLIII. Fig. 14. Unprotected burial of nine persons in a row, side by side, heads at the south-south-east. All were adults. All lay supine, legs extended and arms at the sides except no. 8 from the left, which had the arms folded across the stomach. Nos. 1, 6, and 9 had the left hand on the pelvis, and no. 2,

the right. The greater part of the legs of nos. 1 and 6 was missing. Over the elbow of no. 1 was a cylix, Inv. 34. P. 213. No. 2 had a bronze strigil in the right hand, another over the right forearm, and a third over the left breast, and with it a bronze boss, *Olynthus*, X, nos. 549, 550, and 551. Between the thighs of nos. 2 and 3 was a scyphus, Inv. 34. P. I-20. Between the tibias of no. 3 were a cothon and cover, Inv. 34. P. 175, and fragments of a bronze strigil, *Olynthus*, X, no. 555. Across the shoulders of no. 4 were part of a bronze strigil, *Olynthus*, X, no. 552, and a bronze boss. At the feet

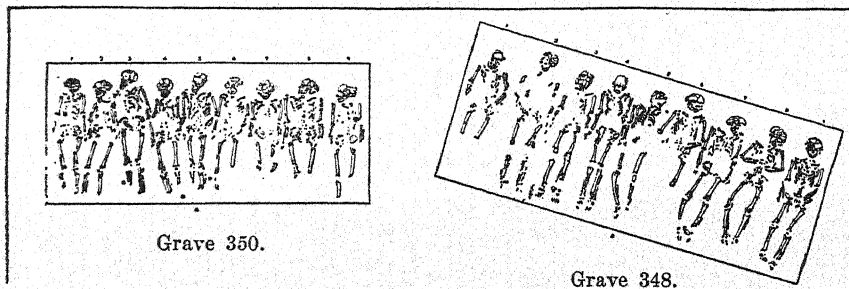


Fig. 14.

of no. 5 was a cylix, Inv. 34. P. 211. To the left of the pelvis of no. 6 was a black-figured amphora, Inv. 34. P. 243. In an inverted position over the mouth of no. 7 was a cylix, Inv. 34. P. 212. To the left of the pelvis were a scyphus, Inv. 34. P. I-25 and a cothon, Inv. 34. P. 176. To the right of the head of no. 8 was a lecythus, Inv. 34. P. 193. On the pelvis were a broken bronze strigil, *Olynthus*, X, no. 553, and boss. Between the thighs was a broken ostrich egg. To the right of the pelvis of no. 9 was a cylix, Inv. 34. P. 210. On the left hand was a bronze strigil, *Olynthus*, X, no. 554; and to the left of the thigh was a long iron spear-head, *Olynthus*, X, no. 2165, wrongly attributed to grave 350.²⁴ Second half of fifth century B. C. Contemporary with graves 350 and 364.

Grave 349. Pl. XLII. Flat tile covering, one tile long. Depth 0.70 m. The skeleton (b) of an adult lay supine with the arms at

²⁴ Drawings were made of the objects found with the skeletons in Graves 348, 350, and 364, in their original positions. These are not clear enough for reproduction but are accessible in my *Olynthus* apparatus at the Johns Hopkins University.

the sides, the right hand resting on the pelvis, the legs extended, the head at the east. The legs were protruding from the tile. No grave furniture was found.

Grave 350. Pl. XLIII. Fig. 14, p. 71. Unprotected burial of nine adults lying supine, heads at the south-east, legs extended, arms at the sides, nos. 5 and 6 from the left probably having the hands on the pelvis. The skeletons were rather well preserved except the lower legs of some of them. They lay closer together than those in grave 348. Between the hands of nos. 1 and 2 was a plain bowl, Inv. 34. P. 217. Between the thighs was a cylix, Inv. 34. P. 215. Between the thighs of no. 3 was a one-handled bowl, Inv. 34. P. V-8. Over the shoulder of no. 5 was another bowl, Inv. 34. P. V-9, and to the right of the thighs was a third bowl, Inv. 34. P. V-10. Over the left hand of no. 6 was a bronze strigil, *Olynthus*, X, no. 547. Another was over the thighs of no. 8, *Olynthus*, X, no. 548, and with it a bronze boss. With them was a cothon, Inv. 34. P. 174. To the left of the thighs of no. 9 was a cylix, Inv. 34. P. 214. Second half of fifth century B. C. Contemporary with graves 348 and 364.

Grave 351. Double Laconian tile covering, somewhat broken, south-east to north-west. L. 0.89 m. W. 0.36 m. Dm. 0.60 m. The skeleton was preserved only where covered by the tiles. Head faced south-east. Preserved length of skeleton 0.81 m. No grave furniture was found.

Grave 352. Pl. XLV. Gabled tile covering, two tiles long. The skeleton of an adult lay supine with the head at the east, arms at the sides, legs extended. Between the thighs was a squat lecythus, Inv. 38. P. 138. In the mouth was a silver coin of Acanthus, Inv. 38. C. 147, similar to *Olynthus*, IX, Pl. XXIX, no. 5; *Catalogue of Greek Coins in the British Museum*, London, 1879, p. 36. Early in second quarter of fourth century B. C.

Grave 353. Wooden coffin, indicated by about a dozen iron nails. A few scattered pieces of bone were found, probably of the skeleton of an adult. The grave had been disturbed, but the head was probably at the west. Toward the east end was a squat lecythus, Inv. 38. P. 145. Second quarter of fourth century B. C.

Grave 354. Pl. LX, 47. *Enchytrismos*. A large barrel-like vessel, 0.57 m. long, 0.43 m. across the mouth, and 0.215 m. across the bottom lay on its side with the mouth at the west. It had a lip about 0.02 m. wide and walls of red clay about 0.01 m. thick. In it was the skeleton of a child, the head coming about 0.05 m. from the bottom, the feet somewhere near the mouth. Only the larger bones were recognizable. No grave furniture was found. Fifth or early fourth century B. C.

Grave 355. Pl. LX, 33. *Enchytrismos*. Amphora lying on its side with the mouth at the east. No skeletal remains or grave furniture were found. Late fifth or early fourth century B. C.

Grave 356. Pl. LIX, 12. *Enchytrismos*. Amphora lying on its side with the mouth at the east. L. 0.58 m. No skeletal remains or grave furniture were found. Late fifth or fourth century B. C.

Grave 357. Flat tile covering, one tile long. The skeleton of a child or adolescent lay supine, head at the east, arms at the sides, legs extended. Length to ankles about a meter. The whole skeleton was somewhat disarranged by roots of shrubby growing through, parts of the skull being raised 10 to 15 cm. above their former position. No grave furniture was found.

Grave 358. Pl. LIX, 13. *Enchytrismos*. Amphora lying on its side, mouth at the north-west. No skeletal remains or grave furniture were found. Late fifth or fourth century B. C.

Grave 359. Pl. LIX, 22. *Enchytrismos*. Amphora lying on its side, mouth at the east-north-east. L. 0.65 m. No skeletal remains or grave furniture were found.

Grave 360. Gabled tile covering, two tiles long, with parts of tiles at both ends. Only fragments remained of the skeleton of an adult, lying with the head at the east-south-east. No grave furniture was found. A paste bead was the only object left in the grave, *Olynthus*, X, no. 2670.

Grave 361. Pl. XLV. Gabled tile covering, two tiles long. Depth 0.60 m. The fragmentary skeleton of an adult lay supine, with the head at the east. Over the skull was a squat lecythus,

Inv. 34. P. 155. Left of the skull was a terracotta seated female figurine, Inv. 34. T. 70, and another was at the feet, Inv. 34. T. 69. Fifth or beginning of fourth century B. C.

Grave 362. Gabled tile covering, two tiles long. Only a few



Fig. 15. Burial of Corpses close together in Grave 364.

fragments remained of the leg bones of the skeleton of an adult lying supine with the head at the east. At the feet was a squat lecythus, Inv. 34. P. VI-20. Second quarter of fourth century B. C.

Grave 363. Unprotected burial of a child lying with the head at the east. Only a few fragments remained. Depth 0.55 m. On a bone of the left arm was a bronze bracelet, *Olynthus*, X, no. 238. At the left hand were the following: on the bones of two fingers

were rings, *ibid.*, nos. 493, 494; a bronze coil ring, *ibid.*, no. 497; one astragalus; and fragments of a bronze pendant.

Grave 364. Pl. XLIV. Figs. 15-18. Unprotected burial of twenty-six persons, lying supine with heads at the south-east. They were crowded together more than those in grave 350, the arms of ten overlapping. The legs were extended, and the arms at the sides, the hands of some resting on the pelvises. The skeletons of nos. 1 and 2 from the left were fragmentary, being in shallow ground and dug up by the ploughs of the farmers. Those to the right were farther up the hill and in deeper ground, 1.30 m. at no. 26. There were five graves of later date over this multiple burial,

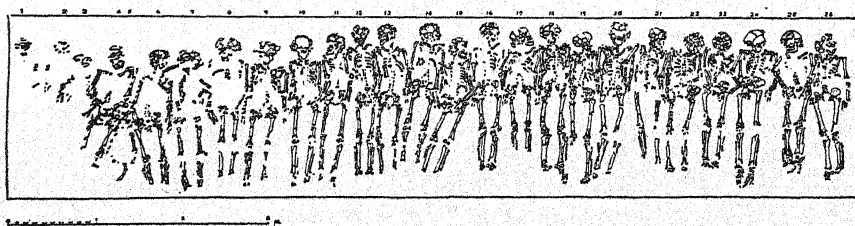
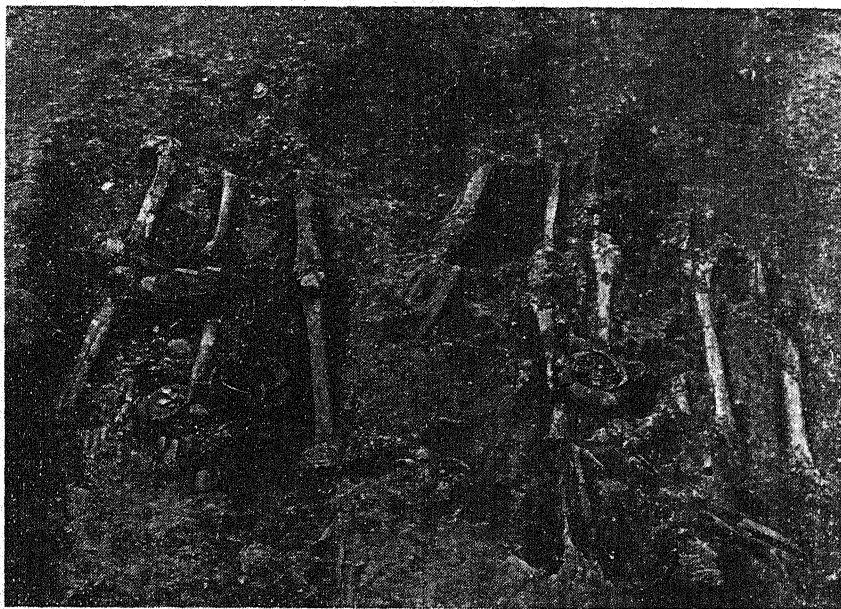


Fig. 16. Sketch of Multiple Burial in Grave 364.

grave 365 over skeletons 12 to 15, 366 over 16, 368 over the legs of 24 and 25, 369 over the heads of 18 and 19, and 170 over 23. All skeletons were of adults except no. 5, which was of a child. They seem to have been mostly males, but some were obviously female. Between the heads of burials 1 and 2 was a cylix, Inv. 34. P. 70. On the legs of no. 4 were two much broken bronze strigils, *Olynthus*, X, nos. 530, 531, and on the legs of no. 5 were fragments of another strigil, *ibid.*, no. 532. No. 6 had a shallow scyphus on the pelvis, Inv. 34. P. IV-3. On the thighs of no. 7 was a broken bronze strigil, *Olynthus*, X, no. 533. Between the thighs of no. 7 and of no. 8 was a scyphus, Inv. 34. P. I-7, and between nos. 8 and 9 was a bronze bowl, *Olynthus*, X, no. 583. Between the thighs of no. 9 was an alabaster pyxis and cover, Inv. 34. P. 52. On the ribs was a scyphus, Inv. 34. P. I-6. Between the legs of nos. 9 and 10 was an amphora, Inv. 34. P. 51. Over the shoulder of no. 11 was a one-handled bowl, Inv. 34. P. V-3. Between the thighs of no. 13

was a cylix, Inv. 34. P. 82. Between the feet, a squat lecythus, Inv. 34. P. 80. Between the pelvises of nos. 13 and 14 was a cylix, Inv. 34. P. 81. At the right hand of no. 15 was a plain bowl, Inv. 34. P. 218. Between the legs of nos. 15 and 16 was a one-handled bowl, Inv. 34. P. V-1. Between the legs of no. 17 was a broken bronze strigil, *Olynthus*, X, no. 534. No. 20 (Fig. 17) also had a broken



22 21 20 19 18
Fig. 17. Skeletons 18-22 in Grave 364 (feet at top of illustration).

bronze strigil, *Olynthus*, X, no. 536; a lecythus, Inv. 34. P. 231; and at the right thigh a cothon (Fig. 17), Inv. 34. P. 78. No. 21 had a bronze strigil over the left knee, *Olynthus*, X, no. 535; a scyphus between the thighs, Inv. 34. P. I-5; and a spear-head made with iron point on a bronze ferule, Inv. 34. B. 385, over the heart. Between the thighs of nos. 21 and 22 were a cylix, Inv. 34. P. 83, and a scyphus, Inv. 34. P. I-23. Between nos. 23 and 24 (Fig. 18) was a lecythus, Inv. 34. P. 79. Between the knees of no. 24 (Fig. 18) were a one-handled bowl, Inv. 34. P. V-2, and a small saucer. Between the knees of no. 25 were a two-handled bowl, Inv. 34. P. 117, and fragments of a strigil. Left of the foot of no. 26 was a mould

for a pomegranate, Inv. 34. T. 128. Second half of fifth century B. C., contemporaneous with graves 348 and 350. Cf. pp. 164, 200.

Grave 365. Gabled tile covering, two tiles long. Depth 0.20 m. Over grave 364. The skeleton of an adult lay supine with the head at the east-south-east, arms at the sides, legs extended. On the left hand was a bronze ring, *Olynthus*, X, no. 485. Late fifth or fourth century B. C.

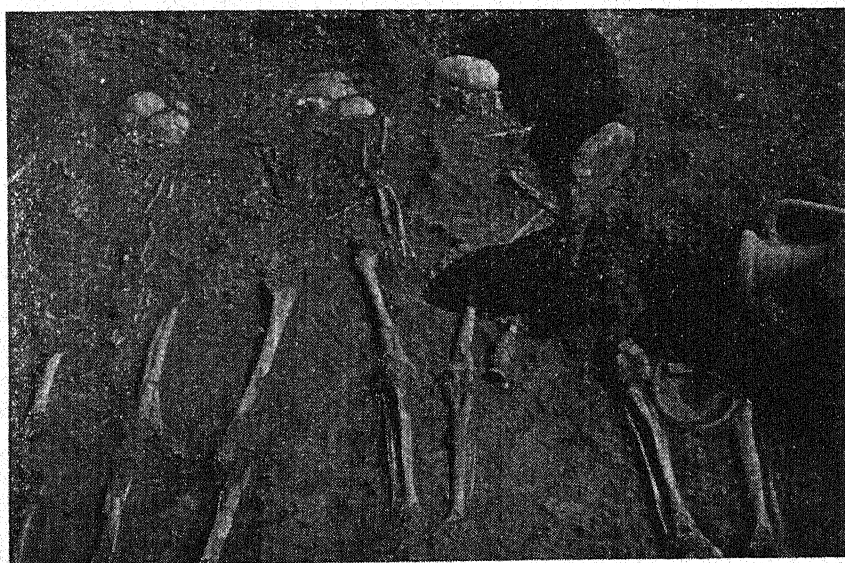


Fig. 18. Grave 364. Nos. 21-24 and *Enchytrismos*, Grave 368.

Grave 366. Wooden coffin, indicated by iron nails around the skeleton, one by the right arm standing on its head. Over grave 364. The fragments of a child's skeleton lay with the head at the south-east. Depth 0.55 m. On the chest were three bronze coins, two of the Chalcidians, Inv. 34. C. 636 and 130, *Olynthus*, IX, p. 223, no. 12, and p. 224, no. 15, and one of Potidaea, Inv. 34. C. 635, *Olynthus*, IX, p. 226. About the pelvis were a miniature Corinthian scyphus, Inv. 34. P. XVa-2; a terracotta mask, Inv. 34. T. 67; a bust, Inv. 34. T. 50; and fragments of a female figurine; a plain bronze ring, *Olynthus*, X, no. 919; two pendant earrings, *Olynthus*, X, no. 314; and six astragali. On the chest was a chain of green

and yellow paste beads, some still on the original string, Inv. 34. ms. 8. Fourth century B. C.

Grave 367. Unprotected burial of an adult lying supine with the head at the south-east. Only fragments of the central part of the skeleton were found. Depth 0.60 m. No grave furniture was found.

Grave 368. *Enchytrismos*. Fig. 18, p. 77, at right. Amphora lying on its side, mouth at the south-west and covered by a stone. L. 0.167 m. Depth 1.10 m. Over grave 364. Only a few scattered small bones were found in the amphora.

Grave 369. Pl. XLV. Gabled tile covering, two tiles long. Depth 0.25 m. Over grave 364. The skeleton of an adult lay supine with the head at the south end of the grave, arms at the sides, legs extended. In the mouth were four bronze coins, three of the Chalcidians, and one of the Bottiaean, Inv. 34. C. 633, 673, 674, 675, *Olynthus*, IX, p. 221, no. 6, and p. 224, no. 16. At the foot of the grave, outside of the tile, was a red-figured oenochoe, Inv. 34. P. 108. Fourth century B. C.

Grave 370. Wooden coffin, indicated by fragments of iron nails about the skeleton. Depth 0.50 m. Over grave 364. The fragmentary skeleton of a child lay with the head at the east. A large deposit of objects was over the head and another over the middle of the body: hydria, Inv. 34. P. 64; lecythus, 34. P. 63; bronze earring, *Olynthus*, X, no. 265; small bronze boss; 64 astragali; and the following terracotta figurines: standing females, 34. T. 86 and 87; seated females, 34. T. 82 and 99; masks, 34. T. 97 and 92; boy, 34. T. 117; satyr, 34. T. 94; female head, 34. T. 98; animals, 34. T. 73-78, 81, 84-85. Late fifth or fourth century B. C.

Grave 371. Pl. XLV. Gabled tile covering, two tiles long, with parts of tiles at both ends. Depth 0.50 m. Over grave 364. The skeleton of an adult lay supine with the head at the south, arms at the sides, legs extended. Between the thighs was a small saucer. Fourth century B. C.

Grave 372. Pl. XLV. Gabled tile covering, two tiles long. Depth 0.40 m. The skeleton of an adult lay supine, head at the

east, arms at the sides, legs extended. Over grave 373. In the mouth were two bronze coins of the Chalcidians, Inv. 34. C. 935, 939, *Olynthus*, IX, p. 221, no. 6. At the left hand was a bronze strigil, *Olynthus*, X, no. 537. Fourth century B. C.

Grave 373. Flat tile covering, one tile long. Depth 0.70 m. Over grave 372. Only a few scattered bones of a child were found. Head probably at the east.

Grave 374. Pl. LIX, 7. *Enchytrismos*. An egg-shaped amphora lay on its side, mouth at the south-south-west, flat stones on their edges around the sides. L. 0.65 m. Depth 0.70 m. No skeletal remains or grave furniture were found. End of fifth or early fourth century B. C.

Grave 375. Pl. XLVI. Unprotected burial of an adult lying supine with the head at the east, arms at the sides, legs extended. Depth 0.30 m. In the mouth was a bronze coin of the Chalcidians, Inv. 38. C. 313. Fourth century B. C.

Grave 376. Pl. XLVI. Wooden coffin, indicated by fragments of at least seven iron nails. The skeleton of an adult lay supine with the head at the east, arms at the sides with the hands on the pelvis, legs extended. Depth 0.70 m. About 20 m. above the legs were some large bones. The diameters of two were 0.035 m., short axes, and 0.05 m., long axes, at the small end. They were about 0.25 m. long. There was another short piece of about equal diameter and a fourth, probably part of a pelvis or shoulder blade. They all lay at an angle of about 45 degrees with the vertical. They may have been bones of a horse (cf. grave 437). No grave furniture was found.

Grave 377. Pl. XLVI. Unprotected burial of an adult lying supine with the head at the east-south-east, arms at the sides with the left hand on the pelvis. Depth 0.45 m. At the right of the head were a black-glazed cantharus, Inv. 38. P. 148, and an unglazed pitcher, Inv. 38. P. 163. Second quarter of fourth century B. C.

Grave 378. Pl. XLVI. Gabled tile covering, two tiles long, with part of a tile at the east-south-east end. Depth 0.60 m. The

skeleton of an adult lay supine, head at the east-south-east, arms at the sides, the left leg extended with the right knee flexed and lying over the left leg. The skeleton was well preserved, but the head end was close to a trench of a former excavation, and the head had been removed through a hole made in the head-tile. Only the lower jaw remained. No grave furniture was found.

Grave 379. Pl. XLVI. Wooden coffin, evidenced by at least nine large iron nails surrounding the skeleton. The skeleton of an adult lay supine, head at the south-east, arms at the sides, legs extended. Depth 0.90 m. No grave furniture was found.

Grave 380. Unprotected burial of a child lying supine, head at the south-south-west. Depth 1.30 m. Only fragmentary bones were found. On a finger bone of the left hand, measuring 0.005 m. in diameter was a bronze ring, *Olynthus*, X, no. 462. Fourth century B. C.

Grave 381. Pl. XLVI. Flat tile covering, one tile long. Orientation south-south-east by north-north-west. Tile broken and caved in at the center with the corners sticking up. Depth 1.00 m. No skeletal remains or grave furniture were found.

Grave 382. Pl. XLVI. Unprotected burial of an adult lying supine with the head at the east, arms at the sides, legs extended. Depth 0.75 m. Between the thighs was a fragmentary iron strigil, probably held in the left hand.

Grave 383. Pl. XLVI. Unprotected burial of an adult lying supine with the head at the east-south-east. Depth 0.40 m. Only the head and right arm were preserved. They were solid, and there is no evident reason for the absence of the remainder. No grave furniture was found.

Grave 384. Pl. LIX, 18. *Enchytrismos*. Amphora lying on its side, mouth at the east. Depth 0.75 m. L. 0.52 m. Below grave 387. No skeletal remains or grave furniture were found. Late fifth or fourth century B. C.

Grave 385. Pl. LIX, 18. *Enchytrismos*. Amphora, L. about 0.55 m., lying on its side, mouth at the south-south-east. Only

traces of a disintegrated skeleton remained. Late fifth or fourth century B. C.

Grave 386. Flat tile covering, one tile long. Orientation north and south. Depth 0.55 m. Part of a cover tile, 0.63 m. long, with the broken end south. No skeletal remains or grave furniture were found.

Grave 387. *Enchytrismos*. Part of the wall of a round or spherical, coarse, unglazed vessel was found without any piece of top or bottom. Inverted inside was about half of a basin, about 0.35 m. in diameter and 0.12 to 0.15 m. deep, having a flat rim and two round handles directly below bent up and inward against it. The walls of unglazed red clay were 0.06 m. thick (cf. grave 22). The missing parts were probably taken away and the rest disordered when grave 386 was dug. No skeletal remains or grave furniture were found.

Grave 388. Pl. LX, 37. *Enchytrismos*. Amphora about 0.60 m. long lying on its side with the mouth at the west. Depth 0.70 m. In it were two small scyphi, Inv. 38. P. 287 and 38. P. 288. No skeletal remains were found. Probably late fifth or early fourth century B. C.

Grave 389. Gabled tile covering, two tiles long, with parts of tiles at both ends and cover tiles on the ridge. The skeleton of an adult lay supine with the head at the east-south-east, right arm at the side, the left arm missing, legs extended. In the mouth was a small silver coin, Inv. 38. C. 251, which disintegrated in cleaning. On the right side of the middle of the skeleton was a squat lecythus, Inv. 38. P. 332. Between the tibiae was a small vase, Inv. 38. P. 299. At the left ankle was a small bronze ring, *Olynthus*, X, no. 951. Early in second quarter of fourth century B. C.

Grave 390. Flat tile covering, one tile long. Depth 0.70 m. The skeleton of a child lay supine with the head at the east-north-east, arms at the sides, legs extended. No grave furniture was found.

Grave 391. Unprotected burial of an adult lying supine with

the head at the east-north-east, arms folded over the stomach, knees touching and flexed with the feet apart. Depth 0.60 m. By the left elbow was a small piece of a fourth century scyphus. Fourth century B. C.

Grave 392. Unprotected burial of an adult lying supine with the head at the south-south-east, arms at the sides, legs extended. Depth 0.75 m. No grave furniture was found.

Grave 393. Unprotected burial of an adult lying supine with the head at the east-south-east. Depth 0.25 m. The bones were almost entirely disintegrated. Near the right ankle was an alabastrum, Inv. 38. P. 308. Probably late fifth century B. C.

Grave 394. Wooden coffin indicated by iron nails found by the pelvis, shoulders and head. The very fragmentary skeleton of an adult lay supine, head at the east-south-east, arms at the sides, legs extended. Depth at the head 0.30 m., at the feet 0.20 m. By the right tibia was a squat lecythus, Inv. 38. P. 309. Fourth century B. C., second quarter.

Grave 395. Pl. XLVII. Flat tile covering, one tile long. Depth 0.35 m. The tile covered only the upper part of the skeleton of an adult lying supine with the head at the east, arms at the sides with the left hand on the left thigh, legs extended. No grave furniture was found.

Grave 396. Unprotected burial of an adult lying supine with the head at the east, arms at the sides, legs extended. Depth 0.90 m. On the right side of the pelvis was an iron boss 0.05 m. in diameter and 0.01 m. high. On the right thigh was an iron strigil with the handle outward, probably held in the right hand.

Grave 397. Pl. XLVII. Wooden coffin, indicated by iron nails, one of which was found on the ribs on the right side. The skeleton of an adult lay supine with the head at the east-south-east, arms at the sides, legs extended. L. 1.63 m. Depth 1.10 m. On the right femur was an amphora, Inv. 38. P. 356. Probably fifth century B. C.

Grave 398. Pl. XLVII. *Enchytrismos*. Amphora lying on its side, mouth at the south. Depth 0.35 m. The neck and shoulder

of the amphora of grave 399, which was close beside it, was placed on top to cover the break at the shoulder. Grave 399 is of earlier date. No skeletal remains or grave furniture were found. End of fifth or fourth century B. C.

Grave 399. *Enchytrismos*. Amphora lying on its side, mouth at the north. Depth 0.35 m. It was very much disturbed, and the neck and shoulder were found on grave 398. No skeletal remains or grave furniture were found.

Grave 400. Pl. XLVII. Gabled tile covering, two tiles long. The west end of the tiles was missing. Depth 0.65 m. The skeleton of an adult lay supine with the head at the east, arms at the sides, legs extended. At the feet were a few small pieces of a large red-figured vase with a ledge for a cover and flat handles. Fifth or early fourth century B. C.

Grave 401. Gabled tile covering, one tile long, with parts of tiles at both ends. The skeleton of a child lay supine with the head at the east, arms at the sides, legs extended. Depth 1.20 m. To the right of the knees were twenty-six astragali; to the left of the lower leg a terracotta figurine, Inv. 38. T. 44; on the left thigh were a lecythus, Inv. 38. P. 232, and an iron strigil. Second quarter of fourth century B. C.

Grave 402. Pl. XLVII. Unprotected burial of an adult lying supine with the head at the east, right arm at the side, the left arm bent at the elbow with the forearm over the stomach, legs extended. On the left elbow was a pile of vases, two among them whole, a one-handled bowl, Inv. 38. P. 209, and a squat lecythus, Inv. 38. P. 207. The others had collapsed and their shapes were not clearly discernible, but one was probably a rather flat bowl and one a rather large bowl with two round handles, into which the others had originally been placed. In the mouth was a bronze coin of Sicyon, Inv. 38. C. 186, similar to *Olynthus*, VI, Pl. XX, 857 (*Olynthus*, IX, pp. 351 f.). About the middle of the first half of the fourth century B. C.

Grave 403. Cremation. Almost immediately under the skeleton of grave 402 was a layer of black earth containing burnt matter.

It was about 1.15 m. long and almost as wide and about 0.10 m. deep. In this, toward the bottom of it, were calcined bones. A few pieces were 0.015 m. thick. No form of body could be determined from the bones, but they were contained in an area about twice as long east and west as north and south, and the larger bones were toward the west end; so it is probable that it is the skeleton of a human being laid with the head at the east. Just out of the east end of the burnt area was an iron spike which probably belonged to this grave, *Olynthus*, X, no. 1540. The skeleton and pottery of grave 402 showed no sign of fire and must have been of a later burial.

Grave 404. Pl. XLVII. Unprotected burial of an adult lying supine with the head at the south, arms at the sides, legs extended. Depth 0.75 m. About 0.10 m. left of the head and about 0.40 m. above was a lamp, Inv. 38. L. 11, of type Group 7 (cf. *Olynthus*, V, no. 86). Second quarter of fourth century B. C.

Grave 405. *Enchytrismos*. Amphora lying on its side with the mouth at the south. No skeletal remains were found. In the amphora were an unglazed pitcher, Inv. 38. P. 296, and two miniature scyphi, Inv. 38. P. 270 and 271. Probably latter half of fifth century B. C.

Grave 406. Unprotected burial of an adult lying with the head at the south. Depth 1.00 m. Only a few bones remained. Left of the legs was a scyphus, Inv. 38. P. 269. About at the center of the grave was a large coarse red-clay vase, evidently a two-handled bowl of about 0.30 m. diameter, broken into many pieces and somewhat scattered. Fourth century B. C., early in second quarter.

Grave 407. Pl. XLVII. Unprotected burial of an adult lying supine, head at the south, legs extended, left arm at the side and slightly under the body, right arm bent at the elbow with the hand on the ribs. The head (Pl. LXVIII and p. 217) was covered by the top of a coarse amphora. Depth 0.70 m. No grave furniture was found.

Grave 408. *Enchytrismos*. Amphora lying on its side, mouth at the south. The neck and shoulder were missing. Depth 1.00 m. No skeletal remains or grave furniture were found.

Grave 409. Unprotected burial of a child lying supine with the head at the south. Depth 1.10 m. Most of the upper part of the body was missing. No grave furniture was found.

Grave 410. Unprotected burial of an adult lying supine with the head at the east, arms at the sides, legs extended. Depth 0.65 m. No grave furniture was found.

Grave 411. Pl. XLVII. Unprotected burial, probably of a youth, lying supine with the head at the east, arms at the sides, legs extended. The skeleton measured 0.23 m. across the shoulders and 0.20 m. across the hips. Depth 0.85 m. Between the legs were twenty-eight astragali, an iron knife, and a squat lecythus, Inv. 38. P. 278. On the stomach was an iron strigil. In the mouth were four bronze coins, Inv. 38. C. 237-240, one of Terone, similar to *Olynthus*, VI, Pl. XX, 860 (*Olynthus*, IX, p. 315), and three of the Chalcidians. Fourth century B. C., second quarter.

Grave 412. Pl. LX, 36. *Enchytrismos*. A large vessel about 0.60 or 0.70 m. in diameter with a squarely flanged lip and no handles, was lying on its side, mouth at the east, the lower part much broken. Depth 0.40 m. Some pieces of small bone were found in it, and with them a terracotta figurine, Inv. 38. T. 49. Probably fourth century B. C.

Grave 413. Pl. XLVII. Unprotected burial of an adult lying supine with the head at the east, legs extended, left arm at the side. The right forearm was lying detached on the chest. Depth 0.60 m. On the left forearm was an object of iron with wood rivetted to it. Between the thighs were a squat lecythus, Inv. 38. P. 257, and a bronze strigil, *Olynthus*, X, no. 546. Early in the second quarter of fourth century B. C.

Grave 414. Pl. XLVII. Unprotected burial of an adult lying supine, head at the east, arms at the sides, legs extended. Depth 0.55 m. No grave furniture was found.

Grave 415. Gabled tile covering, one tile long, with another tile over the corpse. L. 0.99 m. The skeleton of a child lay supine with the head at the west. It was much disintegrated, and the top

of the skull was pushed over the jaw. No grave furniture was found.

Grave 416. Pl. XLVIII. *Enchytrismos*. Amphora lying on its side, mouth at the south. Depth 0.30 m. No skeletal remains were found. In the amphora was a miniature Corinthian scyphus, Inv. 38. P. 253.

Grave 417. Pl. XLVIII. Gabled tile covering, two tiles long, with parts of tiles at the ends. The tiles were much telescoped, the whole grave being only about 1.20 m. long. One tile was laid under the corpse. Depth 0.50 m., about 0.10 m. deeper than grave 418, which lay against it on the north. Grave 417 is earlier than grave 418. The skeleton of a child lay supine with the head at the east. It was not very well preserved. In the region of the stomach were thirteen astragali and three terracotta figurines. All were very fragile, and two were almost entirely disintegrated. By the right cheek was another figurine and two more by the feet, one of which was in fair condition and the other broken beyond recognition: Inv. 38. T. 35, 38. T. 32, 38. T. 41. Fifth or early fourth century B. C.

Grave 418. Pl. XLVIII. Unprotected burial of an adult lying supine with the head at the east, legs extended, arms and ribs missing. L. preserved 1.62 m. Depth 0.40 m. No grave furniture was found. It lay against grave 417 and was later in date. It was also later than grave 416. Fourth century B. C.

Grave 419. Gabled tile covering, two tiles long, with sherds of tile placed on the ridge. The skeleton of an adult lay supine with the head at the east, arms at the sides, legs extended. L. 1.40 m. The upper part of the body and the head were somewhat telescoped, and the vertebrae were forced into an S shape. Over the right shoulder was a broken bronze strigil, *Olynthus*, X, no. 569.

Grave 420. Flat tile covering, two tiles long. The skeleton of an adult, probably a woman, lay supine with the head at the east-south-east, arms at the sides, legs extended. Left of the left knee was a shallow scyphus, Inv. 38. P. 252, and in it two saucers,

38. P. 238 and 239. Left of the foot was a squat lecythus, Inv. 38. P. 160. The grave was placed against the east end of grave 421, partly overlapping it, and is, therefore, of later date. Second quarter of the fourth century B. C.

Grave 421. Gabled tile covering, two tiles long. Partly under grave 420. The skeleton of an adult lay supine with the head at the east-north-east, arms at the sides, legs extended. Under the left knee was the amphora of grave 444. In the mouth were four bronze coins, Inv. 38. C. 170 and 173 of the Chalcidians, 38. C. 172 of Terone, similar to *Olynthus*, VI, Pl. XX, 859 (IX, p. 315), and 38. C. 174 of the Bottiaeans, similar to *Olynthus*, IX, p. 224, no. 16. Fourth century B. C., first quarter.

Grave 422. Gabled tile covering, two tiles long, with part of a tile at the east end. The skeleton of a small adult or youth lay supine with the head at the east, arms at the sides, legs extended. On the right thigh was an iron strigil, evidently held in the right hand. Between the thighs were three astragali and a squat lecythus, Inv. 38. P. 221. Second quarter of fourth century B. C.

Grave 423. Unprotected burial of an adult lying supine with the head at the east-north-east, arms at the sides, legs extended. The lower part of the legs was removed to make room for grave 424. No grave furniture was found.

Grave 424. Pl. LX, 44. *Enchytrismos*. An egg-shaped vessel, thicker toward the bottom, a knob foot, narrow, short neck, out-turned lip, and no handles, was lying on its side, mouth at the west-north-west. L. 0.79 m. Dm. 0.52 m. Depth about 0.25 m. Only a few bones of an infant were found in the vase. Probably late fifth century B. C.

Grave 425. Gabled tile covering, one tile long. Orientation east-north-east by west-south-west. Only a few bones were found of a child's skeleton, orientation uncertain. In the grave were four bronze coins, two of the Bottiaeans and two of the Chalcidians, *Olynthus*, VI, 74, 75, 176, 237, *Olynthus*, IX, p. 300 and p. 298, and a scyphus, *Olynthus*, V, 981. Fourth century B. C.

Grave 426. Pl. XLVIII. Fig. 19. Gabled tile covering, two tiles long, with parts of tiles at both ends. The skeleton (b) of an adult lay supine with the head at the east-north-east, arms at the sides, legs extended. In the mouth were four bronze coins, two of the Bottiaean and two of the Chalcidians, *Olynthus*, VI, 72, 73, 236, 397, *Olynthus*, IX, p. 300 and p. 298. On the lower right ribs was a shallow scyphus, *Olynthus*, V, 544. Across the thighs, probably held in the left hand, was an iron strigil, *Olynthus*, X, no. 540.



Fig. 19. Grave 426 about to be opened. Looking south.

Grave 427. Pl. LX, 45 (bottom). *Enchytrismos*. A large egg-shaped vessel, 0.76 m. long, without handles lay on its side, mouth at the north-north-east. Depth 1.15 m. No skeletal remains were found, but in the vessel were four vases, Inv. 38. P. 483-485, 487, a terracotta figurine, Inv. 38. T. 164, and some astragali. Late fifth or early fourth century B. C.

Grave 428. Unprotected burial of an adult lying supine with the head at the north-east, arms at the sides, legs extended. Depth 0.50 m. On the right arm was a bronze ring, *Olynthus*, X, no. 935. By the left shoulder was a bronze needle, *Olynthus*, X, no. 1758.

Grave 429. *Enchytrismos*. Amphora lying on its side, with

the mouth at the south-east. The amphora was much broken, and the small bones outside on the south had evidently been in it. No grave furniture was found.

Grave 430. Wooden coffin, indicated by four iron nails around the east end of the grave. A few traces of small bones of a child were found, distinguishing the legs at the west, and the head at the east. About the center were eleven astragali and four terracotta figurines, Inv. 38. T. 75, 80-82.

Grave 431. Gabled tile covering, one tile long, with part of a tile at the east end. Orientation east and west. Depth 0.40 m. No skeletal remains or grave furniture were found.

Grave 432. Pls. XLVIII and LX, 43. *Enchytrismos*. Two large unglazed red-clay craters were placed on their sides, mouth to mouth, their feet to the south-east and north-west. The mouths, as wide as the craters themselves, were about 0.35 m. in diameter and had narrow flat rims. The feet were short and about 0.06 m. in diameter. No skeletal remains were found. In the craters were a bronze fibula, Inv. 38. B. 151, and two terracotta figurines, 38. T. 76, and an uncatalogued one. Fifth century B. C.

Grave 433. Pl. XLVIII. *Enchytrismos*. Amphora lying on its side with the mouth at the east, covered by a stone. The mouth was over grave 432, which is, therefore, earlier. No skeletal remains were found. In the amphora were three pieces of a bronze bracelet, uncatalogued. Late fifth or fourth century B. C.

Grave 434. *Enchytrismos*. Amphora lying on its side with the mouth at the north-west, very much broken and over half of it missing. Depth 0.20 m. In it was a pair of bronze earrings, *Olynthus*, X, no. 281, but no skeletal remains.

Grave 435. A cover tile, broken in two, was placed one half under and the other half over the corpse of an infant. Depth 0.25 m. Orientation east and west. In the west end was a shallow black-glazed fourth century scyphus. No skeletal remains were found though probably the infant was laid with head at the east. Fourth century B. C.

Grave 436. Pl. LIX, 1. *Enchytrismos*. Amphora lying on its side with the mouth at the west-south-west. L. ca. 0.50 m. Dm. ca. 0.35 m. Depth 0.30 m. Only a few small bones were found in it. Late fifth or fourth century B. C.

Grave 437. Pl. XLVIII. Fig. 20. See p. 79. A horse, lying on its right side with the feet slightly back and the head forward. The head came under the edge of graves 435 and 436, but it is not likely that the horse had any connection with them, for it was buried about



Fig. 20. Skeleton of Horse.

0.40 m. deeper and therefore earlier in date. Grave 438, the grave of an adult, was about 0.90 m. in front of the horse's skeleton, but it, too, was at a level about 0.40 m. above the horse. There is no reason why the horse should have connection with any grave, except that one is reminded of the famous horses of Cimon, which won three Olympic victories and which were buried facing (*καταγτίον*) Cimon's grave,³ and of the many burials of horses in graves of kings and nobles in southern Russia and elsewhere,⁴ in

³ Herodotus, VI, 103.

⁴ Minns, *Scythians and Greeks*, p. 153; Max Ebert, *Reallexikon der Vorgeschichte*, Berlin, 1929, XIII, 68 ff.; 88-90; *A.J.A.*, XXXVII, 1933, pp. 32 f.; *Antiquity*, XV, 1941, pp. 50-70; *Iliad*, XXIII, 171; Herodotus, IV, 71, 72. On the burial of horses and their connection with warriors and heroes cf. Percy Gardner, *J.H.S.*, V, 1884, p. 131; *Sculptured Tombs of Hellas*, pp. 83, 95 ff.; but in Greece proper in classical times there are very few examples of burial of horses with their owners. So perhaps, as we have said, it was an individual burial of a beloved horse and not a

whose honor the horses were sacrificed. It looks rather as though this horse, probably a highly esteemed animal, was just buried in the cemetery when it died. No weapons or indications of a violent death were noticed. The burial of the horse is definitely earlier than graves 434, 435, and probably 438, and is, therefore, not later than late fifth century B. C. It may have taken place before this ground was part of the cemetery. There are other indications, however, that horses were occasionally buried in the cemeteries at Olynthus; the bones over grave 376 were later than the grave, and horse teeth were found in the North Cemetery. There is a possibility that these burials are later than the cemeteries.

Grave 438. Unprotected burial of an adult lying supine, with the head at the east, arms at the sides, legs extended. Depth 0.30 m. No grave furniture was found. See p. 222.

Grave 439. Pl. LIX, 11. *Enchytrismos*. Amphora lying on its side with the mouth to the west, most of the neck and shoulder missing. Depth 0.40 m. No skeletal remains were found. In the amphora were two glass paste beads, *Olynthus*, X, nos. 2657 and 2664. Late fifth or fourth century B. C.

Grave 440. Unprotected burial of an infant. Only a few fragments of the skeleton were found and the orientation could not be determined. Depth 1.00 m. With them was a terracotta figurine, Inv. 38. T. 142.

Grave 441. Unprotected burial of an adult lying supine, with the head at the east, arms at the sides, legs extended. Depth 0.84 m. No grave furniture was found.

Grave 442. Unprotected burial of an adult lying supine, with the head at the east, arms at the sides, legs extended. Depth 0.45 m. No grave furniture was found. See p. 223.

Grave 443. *Enchytrismos*. Amphora lying on its side with the mouth to the east. Depth 0.50 m. No skeletal remains or grave furniture were found.

sacrifice. Horses have been given special burial even in recent times as Leland Stanford's horse in the horse cemetery at Stanford University. Olynthus had good horses and good cavalry, cf. Xen., *Hell.*, V, 3, 1-6; 4, 54; Diod., XV, 23, 2-3; and for horse-bits found at Olynthus cf. *Olynthus*, X, pp. 487-499.

Grave 444. Pl. LX, 40. *Enchytrismos*. Spherical amphora lying on its side, mouth to the north and downward, under the right leg of grave 421. A stone covered the mouth. Only a few small disintegrated bones were found in the grave. Fifth century B. C.

Grave 445. *Enchytrismos*. Amphora in upright position. Only the broken bottom remained. No skeletal remains or grave furniture were found.

Grave 446. Unprotected burial of an adult lying supine, with the head at the east, the right arm at the side and the left arm across the stomach, the legs extended with the feet somewhat apart. Depth 0.45 m. No grave furniture was found.

Grave 447. Wooden coffin, indicated by iron nails. It was placed slightly over the south end of grave 450, though, being farther up the hill, it was about 0.50 m. deep. The skeleton of an adult lay supine, with the head at the east. To the left of the pelvis was a squat lecythus, Inv. 38. P. 418. Second quarter of fourth century B. C.

Grave 448. Unprotected burial of an adult lying supine, with the head at the east, arms bent with the hands near the face, legs extended. It was about 0.15 m. under grave 450. By the right tibia was a scyphus, Inv. 38. P. 435. On the right side of the pelvis was an iron strigil. Fourth century B. C.

Grave 449. Unprotected burial of an adult lying supine, with the head at the east. The left arm and hip came under the edge of grave 448, and the head under grave 450. No grave furniture was found. Not later than early fourth century B. C.

Grave 450. Cremation. On the hillside at a depth, at the downhill side, of about 0.20 m. was a charred area about 0.15 m. thick. In it were found remains of calcined ribs, pelvis and skull of an adult in thick, black ashes, evidently laid with the head at the east. The charred area came under grave 447 and over graves 448, 449, 451 and 452. A piece of charcoal from the burnt area seemed to be from a deciduous tree. At the west end of the area was a squat lecythus, 38. P. 385, and at the east end, beside the

skull, a scyphus, 38. P. 403. Early in the second quarter of the fourth century B. C.

Grave 451. Unprotected burial of an adult lying supine, with the head at the south-south-east. Only the legs were preserved, abutting the cremation area of grave 450 at a slightly lower level. The rest of the corpse was probably destroyed at the digging of grave 450. Between the legs were a few sherds of a black-glazed bowl. Not later than early fourth century B. C.

Grave 452. Unprotected burial of an adult lying supine, with the head at the south. The head was under graves 448 and 450, and the feet over grave 453. The lower leg bones were missing, probably having been removed when grave 454 was dug. No grave furniture was found. Fifth or early fourth century B. C.

Grave 453. Pl. LX, 42. *Enchytrismos*. Below the legs of grave 452 was a hydria lying on its side with the mouth to the south. No skeletal remains or grave furniture were found. Late sixth or fifth century B. C., not later than the third quarter.

Grave 454. At a depth of 0.50 m. was the skeleton of a child of about eight to twelve years old, lying supine with the head at the south. The upper part of the skeleton was covered by the shoulders of two large unglazed hydriae and the legs by sherds of their bottoms. The legs were in a fair state of preservation, though broken by the sherds, but of the rest only a few small disintegrated pieces were found. The grave was at about the same level as grave 452 but was probably placed later, the legs of the latter being removed at that time. At the feet was a small cup. Second half of the fifth or first half of the fourth century B. C.

Grave 455. Pl. LIX, 3. *Enchytrismos*. Below the feet of grave 454 was an amphora lying on its side with the mouth to the east-south-east. No skeletal remains or grave furniture were found. Late sixth or fifth century B. C.

Grave 456. Unprotected burial of an adult lying supine, with the head at the north-east. No grave furniture was found.

Grave 457. Two cover tiles were placed with the concave sides together, evidently one below and one above the corpse of an

infant. Orientation east and west. Depth 0.60 m. No skeletal remains or grave furniture were found.

Grave 458. Unprotected burial of a small child lying supine, with the head at the east. L. 0.40 m. Depth 1.00 m. A baby-feeder, Inv. 38. P. 471, was found a few centimeters under the left side of it. Second quarter of fourth century B. C.

Grave 459. Pl. XLVIII. Unprotected burial of an adult lying supine, with the head at the east. Depth 0.75 m. No grave furniture was found. For the skull cf. Pl. LXIX and pp. 220-222.

Grave 460. *Enchytrismos*. Amphora lying on its side with the mouth to the west. The mouth and shoulder were somewhat burnt from being under the edge of the cremation grave 473. No grave furniture was found. Not later than the beginning of the fourth century B. C.

Grave 461. Unprotected burial of a child lying partly on its right side, with the head at the east, legs slightly bent at the knees, right arm at the side, left arm across the pelvis with the hand between the legs. Depth 1.30 m. Below grave 462. No grave furniture was found. See pp. 222-223.

Grave 462. Gabled tile covering, one tile long, with a tile under the corpse. Depth 1.10 m. Only the head remained of a child lying supine with the head at the east. The child was probably not less than one meter tall, for the head was slightly off the tile. At about the center of the grave were the shell of a bivalve, a hydria, Inv. 38. P. 437, five astragali, the bottom of a pyxis, and a terracotta figurine, Inv. 38. T. 119. To the north of the foot, at a depth of 0.45 m., were a two-handled covered bowl, Inv. 38. P. 438, and a baby-feeder, Inv. 38. P. 442, which probably did not belong to this grave. Second half of fifth century B. C., or early fourth.

Grave 463. Pl. XLVIII. Unprotected burial of an adult, probably male, lying supine, with the head at the east-south-east, arms at the sides, legs extended with the feet crossed. No grave furniture was found. The feet were under grave 462, and the grave is therefore earlier in date. See p. 223.

Grave 464. Gabled tile covering, two tiles long. Depth at head 1.45 m. The fragmentary skeleton of an adult lay supine, with the head at the east. By the head was a small plain jug, Inv. 38. P. 439. Late fifth or early fourth century B. C.

Grave 465. Gabled tile covering, two tiles long, with double thickness of tiles on the south side. Depth 0.65 m. The skeleton of an adult lay supine, with the head at the east. To the right of the knees was a lecythus, Inv. 38. P. 416, and to the left of the knees were two more, Inv. 38. P. 417 and 38. P. 527, and an iron fragment. Fourth century, probably about 370 B. C. See p. 223.

Grave 466. Unprotected burial of a male adult lying supine, with the head at the south. No grave furniture was found. The grave is later than grave 464 and earlier than grave 465. For the skull cf. Pl. LXIX and pp. 219-220.

Grave 467. Gabled tile covering, two tiles long. Orientation east-south-east and west-north-west. Depth 0.70 m. No skeletal remains were found. On the south side, about midway between the ends, was a cantharus, Inv. 38. P. 204, with a small saucer, Inv. 38. P. 210. Early in second quarter of fourth century B. C.

Grave 468. *Enchytrismos*. Amphora on its side with the mouth to the west. No skeletal remains or grave furniture were found. Later than grave 467. Middle of fourth century B. C.

Grave 469. Pl. LIX, 21 (bottom). *Enchytrismos*. Amphora inclined about ten degrees to the east. Only the bottom part remained. No skeletal remains or grave furniture were found. Fourth century B. C.

Grave 470. Pl. LX, 35. *Enchytrismos*. A vessel like an amphora, but without any sign of handles, was lying on its side with the mouth to the south, the break at the shoulder covered by sherds of another vase and propped up with stones. In the vessel was a disarranged pile of bones and on it a small bowl with cover, Inv. 38. P. 159. Fourth century B. C., probably second quarter.

Grave 471. Cremation. In an area of charred matter and burnt earth about 1.10 m. long north-west and south-east and 0.65 m. wide and 0.12 m. thick were parts of a large coarse vase,

probably an amphora, badly burnt, and a scyphus. No skeletal remains were found. Fourth century B. C.

Grave 472. *Enchytrismos*. Amphora lying on its side with the mouth to the east-south-east. No skeletal remains or grave furniture were found.

Grave 473. Cremation. At a depth of about 0.15 to 0.20 m. was a charred area about 1.25 by 0.50 m., longest north-north-east by south-south-west, and about 0.20 m. thick at the center. It contained fragments of calcined bones from which the form of a skeleton could be made out lying with the head at the north-north-east. At the center were a piece of burnt bronze and some charcoal from a deciduous tree. Near the left knee was a cantharus, Inv. 38. P. 421. Between the legs were a lecanium cover, Inv. 38. P. 427, and a scyphus, Inv. 38. P. 429. Later than graves 460 and 474. First quarter of fourth century B. C.

Grave 474. *Enchytrismos*. Amphora lying on its side with the mouth to the west. L. 0.57 m. Dm. 0.42 m. Depth 0.80 m. No skeletal remains or grave furniture were found. Not later than the beginning of the fourth century B. C.

Grave 475. Cremation. At a depth of 0.70 m. was an area of charred matter and burnt earth about 0.60 by 1.00 m., longest north-east and south-west. On top of the black earth were burnt sherds of coarse pottery. Toward the south-west were an iron strigil and a small jug, Inv. 38. P. 470. No skeletal remains were found. Probably fourth century B. C.

Grave 476. Gabled tile covering, two tiles long, with parts of tiles at both ends. L. 1.73 m. Depth 0.75 m. The skeleton of an adult lay supine, with the head at the south-east. No grave furniture was found. Later than graves 477 and 491. See p. 223.

Grave 477. Pl. XLIX. Unprotected burial of an adult lying supine, with the head at the east, right arm at the side, left arm across the stomach, legs extended. The skeleton was surrounded by large stones. Depth 0.85 m. No grave furniture was found. Earlier than grave 476.

Grave 478. Gabled tile covering, two tiles long. L. 1.70 m.

Depth 1.00 m. The skeleton of an adult lay supine, with the head at the east, arms at the sides, legs extended, the head pushed between the shoulders. No grave furniture was found.

Grave 479. *Enchytrismos*. Only the lower part of a fairly large vessel remained, probably an amphora, lying on its side. The direction of the mouth was uncertain. No skeletal remains or grave furniture were found.

Grave 480. Probably an unprotected burial. No skeletal remains were noticed, but a small scyphus, Inv. 38. P. 152, lying on its side in a lecanis, Inv. 38. P. 151, with the base of an unglazed vase, probably a pitcher, beside them was found rather shallow in the earth. Second quarter of the fourth century B. C.

Grave 481. Unprotected burial of an adult lying supine, with the head at the north, arms at the sides. Depth 0.70 m. No grave furniture was found.

Grave 482. Pls. XLIX and LIX, 20. *Enchytrismos*. Amphora upright and inclined to the east. Depth 1.20 m. The mouth was closed by a black-glazed dish, now much broken. It was under the head of grave 484 and earlier than it and than grave 483. Late fifth or early fourth century B. C.

Grave 483. Pl. XLIX. Unprotected burial of an adult. Depth 0.90 m. Orientation unknown; the bones were arranged around the outside of the skeleton in grave 484. Apparently when the grave diggers came upon the bones of skeleton (483) they arranged those bones around the outside of the pit, forming a frame for the later burial (484). Late fifth or fourth century B. C., later than grave 482 and earlier than grave 484.

Grave 484. Pl. XLIX. Unprotected burial of an adult lying supine, with the head at the east, arms at the sides, legs extended. The bones of a former burial, grave 483, were laid around the head. Depth 0.90 m. By the left arm were an iron knife and a small saucer. Fourth century B. C.

Grave 485. Pl. XLIX. Unprotected burial of an adult lying supine, with the head at the south-south-west, knees bent with the

tibias to the left, arms across the stomach, head lying on the left cheek with the face against the left shoulder. Depth at head 0.85 m. Near the right knee was a small bowl, Inv. 38. P. 482. The head was under graves 486 and 487. Late fifth or early fourth century B. C. For the skull cf. Pl. LXVIII and pp. 217-219.

Grave 486. Flat tile covering, one tile long. Depth 0.50 m. The skeleton of an adult lay supine, with the head at the east, arms folded. The legs, of which very little remained, protruded from the tile and seem to have been bent back at the knees. No grave furniture was found. Later than graves 485 and 487. Fourth century B. C.

Grave 487. Unprotected burial of an adult lying supine, with the head at the east, arms at the sides, legs extended. Most of the right side was removed when grave 486 was dug. Depth 0.50 m. No grave furniture was found. Later than graves 485 and 488 and earlier than grave 486. Fourth century B. C.

Grave 488. Gabled tile covering, one tile long, with a large stone at the east end. Depth 0.90 m. The fragmentary skeleton of a child lay supine, with the head at the east. To the right of the head was a one-handled bowl, Inv. 38. P. 488, and to the left was an amphora, Inv. 38. P. 475. Earlier than graves 486 and 487 and later than grave 489. Early fourth century B. C.

Grave 489. *Enchytrismos*. Amphora lying on its side with the mouth to the east. Depth 1.00 m. Only the bottom of a scyphus and a small bowl, Inv. 38. P. 481, were found in it. End of fifth or early fourth century B. C.

Grave 490. Flat tile covering, two tiles long. Tiles caved in with the edges sticking up. L. 1.53 m. W. 0.50 m. Depth 0.40 m. The skeleton of an adult lay supine, with the head at the north-east, arms at the sides, legs extended. No grave furniture was found.

Grave 491. Pl. XLIX. Unprotected burial of an adult lying supine, with the head at the south, arms folded across the stomach, legs slightly flexed and missing below the knees. Earlier than graves 476 and 488.

Grave 492. Flat tile covering, one tile long. Depth 1.00 m. The skeleton of a child lay with the head at the east. It was largely disintegrated but had enough milk teeth left to guess the age as about four years. With it were some astragali and an entirely disintegrated terracotta figurine. Earlier than grave 493.

Grave 493. Unprotected burial of an adult lying supine, with the head at the east, arms at the sides, legs extended, shoulders skewed, head on left shoulder. L. 1.64 m. Depth 0.45 m. No grave furniture was found. Later than grave 492.

Grave 494. *Enchytrismos*. Amphora lying on its side with the mouth to the east, clear break at the shoulder. L. 0.48 m. Dm. 0.36 m. Depth 0.70 m. No skeletal remains or grave furniture were found.

Grave 495. Flat tile covering, one tile long, only a few centimeters deep. The skeleton of a child of five or six years, of which only some skull fragments and teeth remained, lay with the head at the east. About the feet were thirty-one astragali, a scyphus and a cover, Inv. 38. P. 444. End of fifth or fourth century B. C.

Grave 496. Pl. LIX, 16. *Enchytrismos*. Amphora lying on its side with the mouth to the east. Depth 0.30 m. It contained two bones of a very small infant, too fragmentary to tell the position, and a small bowl, Inv. 38. P. 447. Late fifth or early fourth century B. C.

Grave 497. Pl. LX, 46. *Enchytrismos*. A barrel-like vessel, 0.54 m. tall, 0.25 m. across the bottom and 0.48 m. across the mouth, lay on its side with the mouth at the east, closed by a piece of roof tile. Depth 0.95 m. No skeletal remains were found, only a miniature scyphus, Inv. 38. P. 452. Fifth century B. C., probably first half.

Grave 498. *Enchytrismos*. Amphora lying on its side with the mouth to the east. It was very fragmentary. Depth 1.00 m. Only a small saucer was found in it. Probably fourth century B. C.

Grave 499. Gabled tile covering, two tiles long. Depth 0.25 m. The skeleton of an adult lay supine, with the head at the east, the

left hand between the legs, the right missing, the legs extended. Between the thighs were a fragment of a lecythus and a small jug, Inv. 38. P. 490. Later than grave 500.

Grave 500. Unprotected burial of an adult lying supine, with the head at the north-east, arms at the sides, legs extended, head bent forward. Depth 0.55 m. No grave furniture was found. Earlier than grave 499. See p. 223.

Grave 501. Gabled tile covering, one tile long, with parts of tiles at both ends. L. 1.00 m. W. 0.34 m. Depth 0.65 m. Traces of the skeleton of an infant were found, lying with the head at the east. By the left foot was a white-ground lecythus, Inv. 38. P. 454. End of sixth or first half of fifth century B. C.

Grave 502. Unprotected burial of an adult, probably female, lying supine, with the head at the east-south-east, arms at the sides, legs extended. Depth at the head 0.35 m., the feet shallower. Between the thighs was a lecythus, Inv. 38. P. 449. First quarter of fourth century B. C. See p. 223.

Grave 503. *Enchytrismos*. Amphora lying on its side with the mouth to the east. L. 0.50 m. Depth 0.55 m. No skeletal remains or grave furniture were found.

Grave 504. Tile cist made by placing two tiles on each side of the corpse, part of a tile at each end, and two tiles, convex side up, on the top for a cover. The tiles had collapsed and were much broken. The grave contained the skeleton of an adult lying supine, with the head at the east, arms at the sides, legs extended. No grave furniture was found.

Grave 505. Pl. XLIX. Wooden coffin, indicated by iron nails around the skeleton of an adult lying supine, with the head at the east. Depth at the head 1.00 m. On the right femur was the handle of a lid, or a spindle whorl. Earlier than graves 507, 509, 510.

Grave 506. *Enchytrismos*. Hydria lying on its side with the mouth to the west. Depth 1.00 m. In it were the bone fragments of an infant. No grave furniture was found.

Grave 507. Unprotected burial of an adult female lying supine,

with the head at the east-north-east, left arm at the side, left leg extended. The few bones remaining of the right arm and right leg were disarranged at the placing of grave 509. By the head was a fragile sherd of plain red pottery. Earlier than grave 509 and later than grave 505. For the skull cf. Pl. LXX and p. 222.

Grave 508. *Enchytrismos*. Amphora lying on its side with the mouth to the south. Only fragments remained. No skeletal remains or grave furniture were found.

Grave 509. Gabled tile covering, one tile long. Depth 0.60 m. Orientation east-south-east and west-north-west. Toward the east end was a tooth, lower milk molar 1 with no roots. At the center of the grave was an astragalus. Later than graves 505 and 507 and earlier than grave 510.

Grave 510. Gabled tile covering, one tile long. The skeleton of an adult female lay supine, with the head at the east, left hand on the pelvis, right hand at the side, legs extended and protruding from the covering. Depth 0.55 m. By the left knee was a pyxis with cover, Inv. 38. P. 425 a and b. By the right ear was the crescent of a bronze earring. By the left arm was a terracotta mask, Inv. 38. T. 107. Later than graves 509, 507 and 505. Probably late fifth century B. C.

Grave 511. Gabled tile covering, two tiles long, with part of a tile at the east end. The skeleton of an adult lay supine, with the head at the east. No grave furniture was found.

Grave 512. Pl. L. Gabled tile covering, two tiles long, with small stones propped against the tiles on the outside. The skeleton (b) of an adult lay supine, with the head at the east. In the mouth (visible on Pl. L, 512 b) was a bronze coin of the Chalcidians, *Olynthus*, VI, 238; *Olynthus*, IX, p. 298. By the feet was a buff clay pitcher, *Olynthus*, V, 838. Later than grave 513. Second quarter of fourth century B. C.

Grave 513. Unprotected burial of an adult lying supine, with the head at the east. Between the knees were two squat lecythi, *Olynthus*, V, 465 and 467. On the spine were two more, *Olynthus*, V, 464 and 469, and a two-handled dish with a rim for a cover,

and a bronze fibula, *Olynthus*, X, no. 350. On the pelvis was an oenochoe, *Olynthus*, V, 726. First quarter of fourth century B. C.

Grave 514. Flat tile covering, one tile long, with the feet of the corpse covered by stones. The tile projected considerably beyond the head of the corpse. The skeleton was that of a child, lying supine with the head at the east. It was much disintegrated and only fragments were found under the stones and tile. In the mouth were two bronze coins of the Chalcidians, *Olynthus*, VI, 253 and 254; *Olynthus*, IX, p. 298. Under the west end of the tile, probably between the legs, was a two-handled bowl with a cover, *Olynthus*, V, 1008, and in it a feeding bottle, *Olynthus*, V, 1083; also an egg-shell, Inv. 31.112, and a mollusk shell. On the breast was a bronze fibula, *Olynthus*, X, no. 351. Fourth century B. C.

Grave 515. Pl. L. Unprotected burial of an adult lying supine, with the head at the east, arms at the sides, legs extended. The greater part of the legs had been washed away with the river bank. The head was covered by the inverted lower part of an amphora. I am reminded of the heads in Chirico's painting of the *Lovers* in the Yale Art Gallery. No grave furniture was found.

Grave 516. Pl. L. A slab of gray slate 1.15 by 0.76 by 0.045 m., lay with the longest dimensions east and west. Under it were a few fragments of bone, probably of an adult, lying with the head at the east. Toward the east end was a bronze necklace of sixteen beads, *Olynthus*, X, nos. 49-50, 62, 83-85, 87-90, 147-151, 159. Among the beads was a bronze pendant, *Olynthus*, X, no. 406. Farther west were a bronze ring, Inv. 31.B.81; a bronze bracelet, *Olynthus*, X, no. 226; a bone fibula, *Olynthus*, X, no. 340; a bronze coil-shaped ring, *Olynthus*, X, no. 838; a spinning whorl; an aryballus, *Olynthus*, V, 3; a pitcher, *Olynthus*, V, 748a; and a scyphus, *Olynthus*, V, 946a. Fifth century B. C.

Grave 517. Pl. XLIX. Unprotected burial. Depth 2.00 m. The skeleton of an adult lay supine, with the head at the south, covered by stones. It lay on a flat stone, which was the cover of another grave, 518. The grave was filled with stones mixed with the earth for about a meter. It is not certain whether the stones and the two iron nails, found almost at the top of the stone pile, were

originally part of the burial. The nails may also have belonged to grave 518 or to a later burial. Except for the head, which was off the stone, the bones were fragmentary. Among them was a lecythus, Inv. 38. P. 132, and a small unglazed bowl, Inv. 38. P. 131. End of the fifth century B. C.

Grave 518. A skeleton, rather small, as of an adolescent, lay supine, with the head at the north. It was covered by a limestone slab about 1.05 by 0.70 by 0.15 m., the feet projecting beyond it at the south. At the feet were sherds of black-glazed pottery and a large vessel of coarse greenish clay. Some sherds were also found among the stones of grave 517, which was directly above. The stones over the skeleton of grave 517 most likely were first put on the slab of stone which formed the cover for grave 518⁵ and when grave 517 was dug, by accident directly over grave 518, the stones were removed until the large slab was struck, and after the burial they were replaced over the corpse. Possibly they had no connection with the earlier grave and formed a wall around grave 517 on which a wooden cover was placed. The nails may have united several boards of the cover. When the grave collapsed the stones covered the skeleton and the nails were near the top. The only difficulty here is the interspersion of sherds of the vase from the lower grave. Grave 518 was probably similar to graves 378 and 396 in the cemetery del Fusco at Syracuse, Sicily. Cf. *Not. Scav.*, III, 1895, pp. 158 f., fig. 46. Earlier than grave 517.

Grave 519. Pls. L and LX, 41. *Enchytrismos*. Pithos lying on its side with the mouth to the east. L. 0.90 m. Dm. about 0.45 m. The mouth was covered by a flat stone, and stones propped up the sides. In it were the skull, teeth and a few scattered bones of an infant. With them were a scyphus, *Olynthus*, V, 987; a terracotta figurine, *Olynthus*, VII, 203; and two bronze earrings, *Olynthus*, X, nos. 292 and 293. End of fifth or fourth century B. C.

Grave 520. Pl. L. Gabled tile covering, one tile long, with a large stone at the west end. Orientation east and west. No skeletal remains were found, but near the west end was a bronze bracelet, *Olynthus*, X, no. 195.

⁵ Similar to that in the Late Mycenaean cemetery at Ialysus, Rhodes. Cf. *Annuario d. R. Scuola Arch. di Atene*, VI-VII, 1923-24, p. 194, grave XXXIX.

Grave 521. *Enchytrismos*. A handleless vessel, about 0.52 m. tall and 0.45 m. in diameter, was lying on its side with the mouth to the west. It had been broken at the shoulder and the neck was propped up by two large stones. A large round flat stone, smooth on one side, 0.36 m. in diameter, covered the mouth. In the vessel were fragments of bones and a terracotta crouched satyr, *Olynthus*, VII, 311.

Grave 522. *Enchytrismos*. Amphora lying on its side with the mouth east or west. Only the lower part remained. No skeletal remains were found. In the amphora was a small saucer.

Grave 523. Unprotected burial probably of an adult lying supine with the head at the east. Only a few bones remained, the rest having been washed away by the river. With the bones were two bronze coins of the Chalcidians, *Olynthus*, VI, 245 and 246; *Olynthus*, IX, p. 298. Fourth century B. C.

Grave 524 Pls. L and LIX, 19. *Enchytrismos*. Amphora lying on its side with the mouth to the west. The shoulder, which was very much broken, was lying against the south side of the body with the skull of a small child (b) under it, while the rest of the skeleton was in the other part. The grave was probably disturbed, though it is just possible that the skull is that of another child. Fourth century B. C.


Grave 525. Pls. L and LX, 30. *Enchytrismos*. Amphora lying on its side with the mouth to the east. Only a few scattered bones were found in it. Fourth century B. C.

Grave 526. Unprotected burial of an adult lying with the head at the east. By the legs were two small scyphi, Inv. 34. P. 11 and 49, and two deep scyphi, Inv. 34. P. 9 and 10. Early fourth century B. C.

Grave 527. Unprotected burial of an adult lying supine, with the head at the east-south-east. Depth 0.40 m. About the thighs were four squat lecythi, Inv. 34. P. 6, 7, 19, 20. Second quarter of the fourth century B. C.

Grave 528. Flat tile covering, one tile long. Orientation east and west. Depth 0.25 m. Only traces of the bones of a child remained. Direction of head uncertain.

NORTH CEMETERY (SEE PL. LXV)

Grave 529. *Enchytrismos*. Amphora (?) crushed to fragments and disarranged. One fragment contained a grafitto:  No skeletal remains or grave furniture were found.

Grave 530. Flat tile covering, two tiles long, supported by two stones placed on the chest of the corpse. The skeleton of an adult lay with the head at the east, only a few fragments remaining. No grave furniture was found.

Grave 531. Cremation. An area of charred matter 0.80 by 1.75 m., longest east and west. Depth 0.40 m. Around and under the area the ground was burnt to a brick. Throughout the area were traces of burnt bones, probably of an adult. Among them were a straight-walled stand or vase, a round-bottomed pitcher, sherds of other vases and a scyphus, Inv. 38. P. 57, all burnt. Fourth century B. C., early in second quarter.

Grave 532. Pl. LIX, 20. *Enchytrismos*. Amphora lying on its side with the mouth to the east, covered by a piece of tile held in place by a stone. No skeletal remains were found. In the amphora was a small, unglazed bowl, Inv. 38. P. 84. Fifth or early fourth century B. C.

Grave 533. Pl. LX, 34. *Enchytrismos*. Amphora lying on its side with the mouth to the east. Depth 0.25 m. No skeletal remains or grave furniture were found. Fourth century B. C.

Grave 534. Pl. LIX, 15. *Enchytrismos*. Amphora lying on its side with the mouth to the east-north-east. Depth 0.65 m. Only a bit of black substance was found in the amphora, resembling charcoal. It probably was carbonized wood. Second quarter of fourth century B. C.

Grave 535. Pl. XLIX. Gabled tile covering, one tile long, with the feet projecting and covered by a tile laid flat. The skeleton of an adult lay supine, with the head at the east, left arm at the side, the right arm on the stomach. The legs were bent to the left with the right knee flexed. Under the right elbow

was a one-handed bowl, Inv. 38. P. 88. Second quarter of fourth century B. C.

Grave 536. Gabled tile covering, one tile long, with parts of tiles at both ends. Orientation east and west. Only traces of calcium, probably the disintegrated skeleton of a child, were found. Among them was a baby-feeder, Inv. 38. P. 89. Late sixth or fifth century B. C.

Grave 537. Pl. LIX, 16. *Enchytrismos*. Amphora lying on its side with the mouth to the west, covered by a disc-like stone. No skeletal remains were found. A one-handed bowl, Inv. 38. P. 90, and an oxybaphon, Inv. 38. P. 108, were found on the neck. Early fourth century B. C.

Grave 538. Gabled tile covering, two tiles long, with double thickness of tiles on the north side. L. 1.97 m. W. 0.50 m. Depth 1.25 m. The skeleton of an adult lay supine, with the head at the east. The cremation, grave 539, was against the north side. Cf. *Clara Rhodos*, IV, 1931, p. 14 for a cremation against an inhumation. Probably fifth century B. C.

Grave 539. Cremation. Against the north-east corner of grave 538 was an area of charred matter about 0.68 m. wide and 1.80 m. long, east and west. The ground around it was burnt to a brick and the tiles on the north side of grave 538 were partly disintegrated from the heat. Considerable calcium was found throughout the area, some of which was stone, but some of which may have been calcined bone. Two badly burnt vases were found in the area, Inv. 38. P. 117 and 38. P. 119. Early fourth century B. C.

Grave 540. Gabled tile covering, two tiles long, with parts of tiles at both ends and two more tiles laid over the corpse. Depth 1.20 m. The skeleton of an adult lay supine, with the head at the east-south-east. No grave furniture was found.

Grave 541. *Enchytrismos*. A vase, probably an amphora, lay on its side with the mouth to the west. Depth 0.70 m. No skeletal remains or grave furniture were found.

Grave 542. *Enchytrismos*. A coarse vase lay on its side with

the mouth to the north-west. Depth 0.25 m. Only the bottom part remained and nothing was found in it.

Grave 543. Cremation. At a depth of 0.35 m. was an area of charred matter a few centimeters thick and about 1.00 m. in diameter. No skeletal remains were found. Among the ashes was a burnt black-glazed squat lecythus, Inv. 38. P. 111. Late fifth or early fourth century B. C.

Grave 544. Gabled tile covering, two tiles long. L. about 1.50 m. Tiles collapsed and much disintegrated. Depth 1.50 m. Orientation east and west. No skeletal remains or grave furniture were found.

Grave 545. *Enchytrismos*. Amphora lying on its side with the mouth to the west. Depth 0.75 m. No skeletal remains or grave furniture were found.

Grave 546. Pl. LIX, 14. *Enchytrismos*. Amphora of greenish clay lying on its side with the mouth to the east-north-east. L. 0.53 m. Dm. 0.38 m. No skeletal remains or grave furniture were found. Late fifth or early fourth century B. C.

Grave 547. Cremation. At a depth of 0.35 m. was an area of burnt matter about 1.50 m. long east and west and 0.90 m. wide. The phalanges of the feet and some of the leg bones were clearly distinguishable at the west end. The skeleton was apparently that of an adult or adolescent lying with the head at the east. Fragments of pottery throughout the grave showed only slight signs of fire, but were much disintegrated. Evidently the fire was not very hot.

Grave 548. Flat tile covering, two tiles long. One tile not being wide enough, a second was used, extending about 0.20 m. farther to the south. The tiles were placed directly on the body, a few small stones being placed on the chest to keep the tiles off the face. The tiles were rather small, 0.43 by 0.78 m. The skeleton of an adult lay supine, with the head at the east, arms at the sides, legs extended. A plain black scyphus was standing over the head on the outside of the grave.

Grave 549. Unprotected burial of a child, position unknown.

Only a few fragments of bone were found together with two vases, Inv. 38. P. 3 and 8. Depth 0.50 m. Fourth century B. C., about the middle of the first half.

Grave 550. Cremation. An area of charred matter about 1.00 m. long east-north-east by west-south-west. Depth 0.50 m. Fragments of small calcined bones were found scattered throughout the area, indicating the cremation of a child. At the center of the grave were two scyphi, Inv. 38. P. 11. Early in second quarter of the fourth century B. C.

Grave 551. *Enchytrismos*. Amphora lying on its side with the mouth to the west-south-west. The whole upper part was missing. Dm. 0.40 m. Depth 0.50 m. No skeletal remains were found. In the amphora were a two-handled bowl with cover, Inv. 38. P. 9, and a black-glazed saucer, Inv. 38. P. 10. End of fifth or early fourth century B. C.

Grave 552. Cremation. An area of charred matter, ashes and burnt earth about 0.95 by 1.85 by 0.10 m., longest east and west. It was directly under grave 553. Bones, probably of an adult, were found in the area, and among them was a one-handled bowl, Inv. 38. P. 22. About the middle of the fourth century B. C.

Grave 553. Tile cist made by placing a tile on edge at either side of the upper part of the body, part of a tile at the head end, a wall of stones around the feet, and covering with two tiles. Depth 0.80 m. The skeleton of an adult lay supine, with the head at the east, arms at the sides, legs extended. In the mouth were two bronze coins, one of Scione, Inv. 38. C. 28 (cf. *Olynthus*, VI, Pl. XX, nos. 838-843, *Olynthus*, IX, pp. 311 f.); and one of Abydus, Inv. 38. C. 29. Fourth century B. C.

Grave 554. Gabled tile covering, one tile long. Orientation east and west. No skeletal remains were found. At the east end was a one-handled bowl, Inv. 38. P. 13. Second quarter of fourth century B. C.

Grave 555. Cremation. At a depth of 0.25 m. was an area of charred matter and burnt earth about 0.50 m. wide and a little over a meter long, east and west, and about 0.10 m. thick. The

east end was surrounded by stones. At the west end the burnt earth faded out and the stones were all intermixed. No skeletal remains were found. At the east end was a vase sherd with egg and dot frieze, probably the shoulder of a fourth century hydria. Fourth century B. C.

Grave 556. Wooden coffin originally (now perished). Adult with the head probably at the south. Only the skull was found lying on its left side facing south, the neck at the north. It was smashed flat but does not seem to have been otherwise disturbed. All the rest of the skeleton, including the lower jaw, was missing. There were two iron nails, one on the west and one on the east side of the head.

Grave 557. Cremation. At a depth of 0.30 m. was an area of charred matter 0.80 m. wide and 1.80 m. long east-north-east by west-south-west, containing fragments of rather small, much disintegrated bone, from which no form of skeleton could be traced, though it was probably that of a child. No grave furniture was found.

Grave 558. Tile cist made by placing two tiles on edge at either side of the corpse, part of a tile at either end, and covering with two tiles. Depth to the bottom 0.40 m. One corner had been ploughed away. In the cist were the bones of an adult, lying with the head at the east, but destroyed and all intermixed with sherds of red-clay unpainted pottery.

EAST CEMETERY (SEE PLS. LXIV, LXVI, LXVII)

Grave 559. Gabled tile covering, one tile long, with part of a tile at the west end propped up by a stone. Orientation east-north-east by west-south-west. No skeletal remains were found. In the center of the grave was a terracotta figurine, *Olynthus*, VII, 286. Late fifth century B. C.

Grave 560. Cremation. At a depth of 0.85 m. was a charred area containing a scyphus (Fig. 21, p. 110), *Olynthus*, V, 966. No skeletal remains were found. Second quarter of fourth century B. C.

Grave 561. Cremation. At a depth of 0.70 to 0.90 m. were a number of objects more or less burnt and evidently disturbed, but no skeletal remains or charred earth were observed. The objects were: the terracotta figurines, *Olynthus*, VII, 3, 8, 10, 132, 146, 252, 253, and Inv. 31. T. 179; two squat lecythi, *Olynthus*, V, 413 and 466, and a fragment of another. First quarter of fourth century B. C.

Grave 562. Cremation. At a depth of 0.90 m. was an area of charred matter containing a fairly large piece of charcoal and two



Fig. 21. Grave 560.

vases, *Olynthus*, V, 719 and 1012. No skeletal remains were observed. Early fourth century B. C.

Grave 563. Wooden coffin, indicated by iron nails, *Olynthus*, X, nos. 1496-1500, found at the head and feet of the skeleton of a child, lying supine with the head at the east. Depth 1.10 m. By the right arm was a squat lecythus, *Olynthus*, V, 248. At the right shoulder was a bronze earring pendant, *Olynthus*, X, no. 269. In the right ear hole of the skull was a bronze and silver earring, *Olynthus*, X, no. 299. By the left arm and by the feet were the following terracottas: *Olynthus*, VII, 1, 7, 202, 238, 244. Fourth century B. C.

Grave 564. *Enchytrismos*. Among the sherds of a broken amphora, depth 0.30 m., were some small bone fragments and a

two-handled bowl with cover, *Olynthus*, V, 1006. Fourth century B. C.

Grave 565. Cremation. At a depth of 1.15 m. was an area of charred matter 0.60 m. wide and 1.00 m. long north and south, containing pieces of charred wood, sherds of gray pottery and some bone fragments.

Grave 566. Pls. L and LX, 41. *Enchytrismos*. Amphora standing upright. Depth 1.25 m. Its sides were built up of ten or eleven vertical stave-like segments. No skeletal remains were found. In the grave was a bronze bracelet, *Olynthus*, X, no. 184.

Grave 567. Unprotected burial of a child. Depth 0.70 m. No skeletal remains were found, but from the furniture and its arrangement we may safely assume the burial. The furniture consisted of a feeding bottle, *Olynthus*, V, 1082, and the terracotta figurines, *Olynthus*, VII, 189, 208, 285. Fourth century B. C.

Grave 568. Cremation. At a depth of 0.80 m. was an area of charred matter with large pieces of charred wood and the following objects: vases, *Olynthus*, V, 154, 496, 745, 953, and two bronze strigils, *Olynthus*, X, nos. 523 and 524. Early fourth century B. C.

Grave 569. Pl. LI. Terracotta sarcophagus. L. 1.10 m. W. 0.40 m. H. 0.28 m. This unusual sarcophagus was almost a solid rectangular mass of terracotta with a depression 0.10 m. deep, rounded at the east end and run through the west end. It had been covered by a roof tile which had been broken by the weight of the earth, the east end tilted vertically and the west caved in. No skeletal remains or grave furniture were found in it, but it rested directly on a stratum of ashes in which objects were found (cf. grave 570). While no marks of fire were observed on the bottom, the sarcophagus may have served as a cinerary urn for grave 570. The space inside was rather too shallow to contain a corpse. The very thick bottom (0.18 m.) is unusual for any object in terracotta.

Grave 570. Cremation. The area of charred matter, burnt earth and ashes under grave 569, which was very little larger than the sarcophagus, contained a bronze bracelet (*Olynthus*, X, no. 227)

and three pendants—a clover leaf, a crescent and a cylinder. No skeletal remains were found, and possibly the sarcophagus served as an urn for this grave.

Grave 571. Cremation. At a depth of 1.20 m. was a large charred area containing pieces of charcoal, calcined bones which were probably the legs of an adult, and above them a two-handled bowl and a scyphus, *Olynthus*, V, 974, and an iron nail. Second quarter of fourth century B. C.

Grave 572. Cremation. At a depth of 0.80 m. was a charred area in length from north to south about 0.70 m., in which was a fragmentary burnt coarse amphora, and in it a scyphus, *Olynthus*, V, 954. Second half of fifth century B. C.

Grave 573. Gabled tile covering, one tile long, with parts of tiles at both ends, the east end propped up by stones. Orientation north-east by south-west. Depth 0.70 m. No skeletal remains or grave furniture were found.

Grave 574. Gabled tile covering, one tile long, with another tile over and one under the corpse, and a stone at the west end. The fragmentary skeleton of a child lay supine, with the head at the east. With it was found a fragment of a scyphus.

Grave 575. *Enchytrismos*. Amphora lying on its side, propped up with stones and covered with a roof tile. Orientation unknown. No skeletal remains or grave furniture were found.

Grave 576. Unprotected burial of a child. At a depth of 0.70 m. were found a few bone fragments of a child. Orientation uncertain. With them were the following objects: a few astragali; a bronze bracelet, Inv. 31. B. 138; four bronze strigils laid in the form of a cross with the handles outward, *Olynthus*, X, nos. 518-519 and 527-528; four terracotta figurines, *Olynthus*, VII, 333, 334, 349, 350. Fifth century B. C.

Grave 577. Pl. LI. Stone sarcophagus. L. 2.00 m. W. 0.70 m. at the east end and 0.74 m. at the west. H. 0.55 m. Th. of walls 0.09 m. The cover was a gabled stone. L. 2.10 m. W. 0.70 m. at the east end and 0.75 m. at the west. Th. 0.13 m. at the sides and 0.17 m. at the ridge. The sarcophagus (a and c) was roughly cut

in one piece of light poros stone, but when found it was broken at the corners and the bottom was broken and slightly pushed up. The cover plainly showed tool marks. Orientation east-south-east by west-north-west. Depth to cover 0.30 m. In the sarcophagus (b) was the skeleton of an adult lying supine, with the head at the east-south-east, arms at the sides, legs extended. The bones had been somewhat displaced by the rising bottom and the head rolled into a corner. At the feet were some round seeds.

Grave 578. Pls. LI and LIX, 4. *Enchytrismos*. The body of an amphora-like vase was lying on its side with the mouth to the east. The neck and shoulders were missing, and the opening was covered by a piece of tile. No skeletal remains were found. In the vase were a lecanis, *Olynthus*, V, 235, and a miniature scyphus, *Olynthus*, V, 990. Fourth century B. C.

Grave 579. *Enchytrismos*. Fragmentary amphora found at a depth of 0.40 m. containing a small bowl, *Olynthus*, V, 867, but no skeletal remains. Late fifth or early fourth century B. C.

Grave 580. *Enchytrismos*. At a depth of 0.30 m. was a fragmentary amphora containing two bowls, *Olynthus*, V, 864 and 866, but no skeletal remains. Late fifth or early fourth century B. C.

Grave 581. Cremation. At a depth of 0.50 m. was a charred area about 0.30 by 1.00 m. containing a few bone fragments and a scyphus, *Olynthus*, V, 951, all burnt. Latter half of fifth century B. C.

Grave 582. Probably an unprotected burial of a child, to judge from the furniture. No skeletal remains were found, but at a depth of 1.10 m. was a group of terracotta figurines, mainly seated females, some holding babies.

Grave 583. Unprotected burial. Not far from grave 582 and at the same depth was another group of similar figurines without any evidence of a skeleton. It was probably the grave of another child.

Grave 584. Wooden coffin, indicated by iron nails, *Olynthus*, X, no. 1494, found around the head. The skeleton of a child lay supine, with the head at the north-west. Only fragments of the

skull, arms and legs remained. Depth 0.80 m. Scattered through the grave were eight astragali and fourteen terracotta figurines, *Olynthus*, VII, 26, 27, 159, 160, 167, 175, 183, 186, 209, 220, 221, 305, 351, 358. Fourth century B. C.

Grave 585. Cremation. At a depth of 0.60 m. was an area of charred matter mixed with sherds of coarse pottery and bone fragments. Among them were a bronze pail, Inv. 31. B. 135, corroded to pieces, and a scyphus, *Olynthus*, V, 153. Early fourth century B. C.

Grave 586. Unprotected burial of an adult lying supine, with the head at the east, arms at the sides, legs extended, head rolled slightly toward the left shoulder. L. 1.65 m. It was surrounded by a row of stones too small to have supported a wooden cover. On the pelvis was a bronze strigil with the handle toward the left, *Olynthus*, X, no. 543.

Grave 587. *Enchytrismos*. Amphora lying on its side with the mouth to the north, with a tile over it. In it were a few fragments of a child's skull and a lecythus, *Olynthus*, V, 400; an iron knife, Inv. 31. B. 139; and fragments of bronze covered with gold leaf, Inv. 31. B. 146. Late fifth or early fourth century B. C.

Grave 588. Pl. LI. Gabled tile covering, one tile long, with parts of tiles at both ends and another tile over and one under the corpse. Orientation north-east by south-west. L. 0.97 m. W. 0.50 m. H. 0.35 m. Depth 0.55 m. No skeletal remains or grave furniture were found.

Grave 589. Wooden coffin, indicated by seven iron nails, *Olynthus*, X, no. 1493. No skeletal remains were found. The grave was evidently disturbed. At a depth averaging 0.50 m. were the following objects: a terracotta figurine, *Olynthus*, VII, 166; an animal head, not inventoried; vases, *Olynthus*, V, 81, 139, 1023, and two flat bowls of poor red clay. Fourth century B. C.

Grave 590. Probably an unprotected burial of a child. No skeletal remains were found, only the following objects: a terracotta figurine, *Olynthus*, VII, 205; a feeding bottle, *Olynthus*, V,

1080; a bowl, *Olynthus*, V, 1007; a vase of red clay, poor quality. Fourth century B. C.

Grave 591. Cremation. At a depth of 0.60 m. was an area of charred matter containing sherds of a coarse amphora and the following objects: terracotta figurines, *Olynthus*, VII, 191 and 243; vases, *Olynthus*, V, 251, 494, 498, 907, 958, 1009, and a small pyxis and a scyphus of fourth century type. All were badly charred. No skeletal remains were found. Fourth century B. C.

Grave 592. Pl. LII. Gabled tile covering, two tiles long. Orientation south-east and north-west. It was divided into two equal parts by a triangular piece of roof tile in the center. L. 1.30 m. Depth 0.30 m. In the east half was a bowl with cover, *Olynthus*, V, 1014, and in the west were two skeletons of children, lying one on the other with the heads at the east. One had three coins in the mouth, *Olynthus*, VI, 255, 256, 835; the first two of the Chalcidians, *Olynthus*, IX, p. 298; the last of Scione, *Olynthus*, IX, p. 311. The other child had one coin in the mouth, of the Chalcidians, *Olynthus*, VI, 257, *Olynthus*, IX, p. 298. Fourth century B. C.

Grave 593. Unprotected burial of an adult lying supine, with the head at the east, arms at the sides, legs extended. L. 1.50 m. Depth 0.60 m. In the mouth were four bronze coins of the Chalcidians, *Olynthus*, VI, 177, 178, 243, 244, *Olynthus*, IX, p. 298. At the left shoulder was a vase in the form of a pig, *Olynthus*, VII, 410. Fourth century B. C.

Grave 594. Wooden coffin, indicated by fragments of iron nails found around the objects. Depth 1.10 m. Three terracotta figurines, *Olynthus*, VII, 15, 232, 346, were found close together. No skeletal remains were found. Late fifth or early fourth century B. C.

Grave 595. Pl. LII. Fig. 22. Stone sarcophagus. Orientation east-south-east by west-north-west. Depth to top of cover 1.10 m. L. 2.18 m. W. 0.74 m. H. 0.57 m. Thickness of walls 0.10 m. It was cut out of one piece of stone of a poros nature and was rough dressed, with the tool marks plainly visible (see Fig. 22). The inside of the cover was slightly sunk between the

fitting rim. The top had a low gable. The sarcophagus contained the skeletons (b) of two adults lying supine, with the heads at the east, one on the other. At the feet a large coarse amphora lay on its side, with the mouth to the west, against the end of the sarcophagus. It probably stood up originally. It contained a soft white substance like ashes or flour. On the pelvis were the remains of a

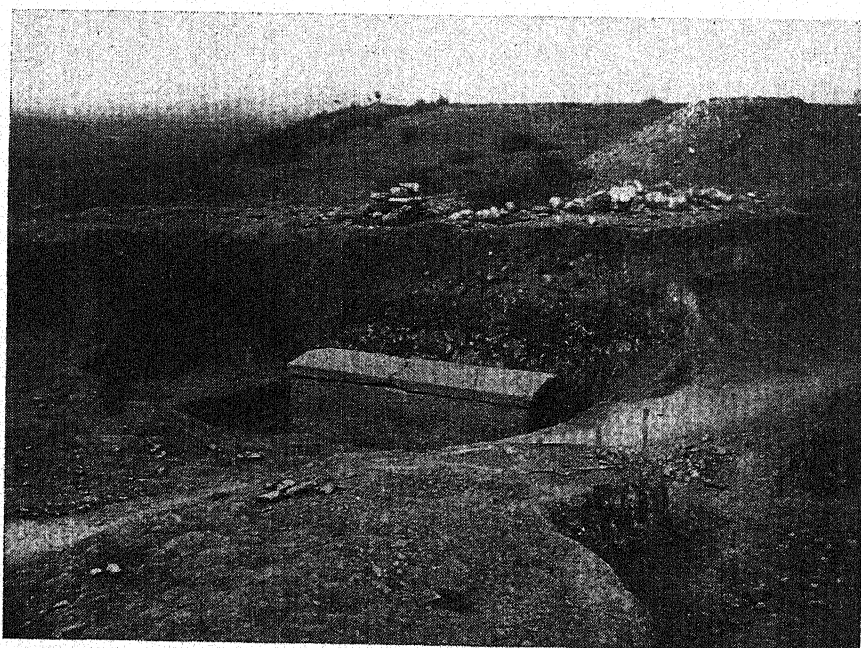


Fig. 22. Grave 595.

basket and under it fragments of cloth in a very fragile condition. Nothing was found in the basket.

MISCELLANEOUS GRAVES

Grave 596. Cist made by placing a roof tile on edge on the north side, a row of stones on the south side, two stones at the west end and part of a tile at the east. No cover for the grave was found. Depth to the inside of the grave 0.38 m. The skeleton lay at the same level with the stones, but the tile had been sunk about half its width into the ground. In the east end of the grave

were the fragments of the skull of a child. At the west end were a small black-glazed hydria, Inv. 38. P. 136, a terracotta figurine and thirteen astragali. Outside of the south wall of the grave was a large astragalus. The grave was located among the houses of the South Hill. Fourth century B. C.

Grave 597. Pl. LII. Stone sarcophagus made of four stone slabs for the sides with another (a) for the cover. Orientation east-south-east by west-north-west. The inside (b) was filled with earth to about 0.08 m. from the cover. On this fill was the skeleton of a child lying on its left side with the head at the west-north-west. L. of child 1.02 m. The earth apparently had filtered into the sarcophagus from the bottom carrying the skeleton up with it, and the corpse may not have been lying on its side originally. By the skull was a bronze earring. Over the right shoulder was a bronze ring, *Olynthus*, X, no. 873. On the ribs was a large bronze pin. By the thighs were two unglazed vases, Inv. 34. P. 233 and 34. P. 244, and by the feet was a vase of coarse greenish ware, Inv. 34. P. 238. The vases were too general in type or too fragmentary to date the grave definitely. They resembled those at Aivasil (cf. *B.S.A.*, XXIII, 1918-19, pp. 18 ff. and 23 ff.). The grave was located north of the North Hill.

Grave 598. Pls. LIII-LVIII. Chamber tomb.* This tomb was situated 1040 meters west of Olynthus, on the level top of the bluffs across the valley. The mound (Pl. LIII), which was about eight meters from the present edge of the cliff, was 23.50 m. in diameter and 4 m. high. The chamber, built below the center of the mound, was oriented rather with the streets of Olynthus than with the points of the compass, that is, somewhat east of north. The floor of the chamber was 6.50 m. below the top of the mound, the ceiling being about at ground level. The entrance (Pls. LIV-LVI, LVIII) was on the west side and was approached by a

* Preliminary discussions occur in *A.J.A.*, XXXIX, 1935, p. 229; *Die Antike*, XI, 1935, pp. 289-291; *Olynthus*, VIII, pp. 48, 253, 256, 297, 300, 301. Unfortunately despite guarding and much expense and trouble to preserve the tomb, every stone recently has been stolen or removed so that scholars will have to rely on our photographs, drawings, notes and measurements.

descent of ten steps about two meters in width cut in the stereo, starting at the edge of the mound.

The chamber tomb (Pl. LVI) was built of local conglomerate. Its inside measurements were 2.57 m. long, east and west, 2.055 m. wide and 2.507 m. high to the top of the walls.⁷ The walls (Pl. LVII) were about 0.50 m. thick and were composed of two narrow tiers of stones at the bottom (each about 0.20 m. high) above which were three wide tiers (about 0.50, 0.50, 0.45 m.) alternating with three narrow ones. The stones were left rather rough on the outside but in the wide tiers they had dressed edges. The stones of the façade (Pls. LV, LVI) were not cut at the corners of the building, but were left projecting, for they would be covered with earth and would not be seen. However, they were dressed on all edges and, therefore, seem to have been re-used blocks or blocks cut for some other purpose. The outside of the stones of the west wall also contained many irregular cuttings, indicating re-used blocks. Some of the holes in the top of the walls were probably dowel holes used in the former building. The corners of the walls were secured by Z clamps in the top stones (Pl. LIV).

On the inside (Pls. LV and LVII) the walls were stuccoed and marked off by incised lines into five horizontal bands,⁸ the second and third from the bottom being also marked off into rather irregular length blocks by vertical lines. The bottom band, or baseboard, 0.285 m. wide, was painted a blue-black. Above that the dado, 0.445 m. wide, was white and the dado-band, 0.148 m. wide, white, alternating with imitation marble veneer. The wall above was red for 0.97 m. and white on the upper 0.664 m.⁹ The decoration of the chamber tomb at Pydna was somewhat similar, especially in the outer vestibule, where the decoration was best preserved.¹⁰ There, above a black baseboard was a white dado with a blue dado-band

⁷ Cf. *Olynthus*, VIII, p. 48 for the ancient scale based on a 0.295 m. foot. The façade is 7' wide, the doorway 7' high by 4' wide at the top; the chamber is 8½' high, and the decoration on its walls shows incised intervals of 5', 3', 2', 1½', 1', and ½'.

⁸ *Olynthus*, VIII, pp. 297, 300.

⁹ Cf. *Olynthus*, VIII, p. 297. The decoration is similar to that of the house A VI 8, b.

¹⁰ Heuzey et Daumet, *Mission archéologique de Macédoine*, p. 18.

and a red wall with a white Doric architrave above. The sepulchral chamber was more simple. It had red walls with a black baseboard and a black band along the upper edge and a white ceiling. The walls of the tomb at Eretria, or at least parts of them, had originally been deep blue but were later painted white.¹¹ Nearly all the tombs of the fourth century B. C. and later were stuccoed and decorated with paint.¹² The tomb at Langaza was stuccoed but not painted.¹³ No paint or decoration was reported from the tomb near the fifth kilometer stone on the Saloniki-Monastir road except fragments of a red and green painted stucco sima.¹⁴ The walls of the tomb at Niausta were decorated with the scene of a cavalry battle,¹⁵ the tomb at Tanagra had a rider scene,¹⁶ and the one on Mount Mithradates in South Russia had the scene of a funeral feast.¹⁷ The tomb at Vathia, which had no mound over it,¹⁸ the tomb at Delphi¹⁹ and the corbelled tombs of South Russia and Thrace,²⁰ which were mainly earlier in date, had the walls undecorated.

The technique of the painting in the tombs seems to be some sort of tempera in every case. Fresco was not noticed anywhere.

Coming back to Olynthus, in the upper white band (Pl. LVII), and in the top of the red one, we find rows of holes in which had been nails or pegs for suspending wreaths or other objects.²¹ Each lateral wall had six holes in the upper row and four in the lower.

¹¹ *Ath. Mitt.*, XXVI, 1901, pp. 340 ff.

¹² Cf. for Palatitza, Heuzey et Daumet, *op. cit.*, pp. 227 ff.; *B.C.H.*, XXII, 1898, p. 342; for Pella, Heuzey et Daumet, *op. cit.*, p. 251; for Pydna, *ibid.*, pp. 243-266, Pls. 15-21; for Amphipolis, *B.C.H.*, XXII, 1898, p. 342; for Laina, *B.S.A.*, XXIII, 1918-19, p. 15.

¹³ *Jb. Arch. I.*, XXVI, 1911, p. 210.

¹⁴ *B.S.A.*, XXIII, 1918-19, p. 40 (y), Pl. XII, 3.

¹⁵ Kinch, *Beretning om en archaeologisk Rejse i Makedonien* (Copenhagen, 1893), p. 10; *B.C.H.*, XXII, 1898, p. 342.

¹⁶ *Ath. Mitt.*, X, 1885, pp. 160 and 161.

¹⁷ *Ath. Mitt.*, XXVI, 1901, p. 344.

¹⁸ *Ath. Mitt.*, XXVI, 1901, pp. 366-376.

¹⁹ Philippe Le Bas, *Voyage Archéologique en Grèce et en Asie Mineure (Itinéraire)*, 1847, Pl. 39.

²⁰ S. Reinach, *Antiquités du Bosphore Cimmérien*, pp. 7 ff.; *B.C.H.*, XXII, 1898, p. 344; *B.S.A.*, XVII, 1910-11, pp. 76-79; *B.S.A.*, XVIII, 1911-12, p. 216; Durm, in *Jh. Oest. Arch. I.*, X, 1907, pp. 230 ff.

²¹ *Olynthus*, VIII, p. 301.

Similar nails were found in the tomb at Langaza,²² in the tomb at Eretria,²³ where the wreaths and ribbons were painted on when the tomb was redecorated, and in some tombs in South Russia.²⁴ In general formal or figure designs seem to have played no part in the mural decoration of this or other tombs at Olynthus nor in the Olynthian house.

The floor of the chamber (Pl. LVII), including the doorway, was composed of a somewhat irregular layer of poor or disintegrated lime concrete. It was apparently similar to floors in the tombs at Palatitza²⁵ and Eretria.²⁶

Bits of decayed wood were found scattered over the floor, presumably timbers from the ceiling. The tops of the side walls and about ten centimeters along the inner edge of the front and rear walls were dressed, undoubtedly to receive a ceiling of rather heavy planks of timbers. Nothing else of the top structure remained except part of the front tympanum wall, which was of stone. This was set on the center of the wall and a little to the north of the center line of the building. There was no evidence of a tympanum at the back of the building, and it is highly improbable that one of stone ever existed. The roof was probably only the flat ceiling onto which the mound was piled and on the front of which was a false gable of wood backed up by the stone tympanum. Almost all the Macedonian tombs had false gables, though they were generally of stone. Our tomb differed from the other Macedonian tombs, which were all somewhat later in date, in that the others had stone ceilings of key-stone barrel vaulting while ours had a wooden ceiling.²⁷

²² *Jb. Arch. I.*, XXVI, 1911, p. 210.

²³ *Ath. Mitt.*, XXVI, 1901, p. 341.

²⁴ Rostovtzeff, *Ancient Decorative Painting in South Russia*, Pls. XIV and XXVI; Reinach, *op. cit.*, p. 8 and plan A.

²⁵ *B.C.H.*, XXII, 1898, p. 341.

²⁶ *Ath. Mitt.*, XXVI, 1901, p. 340.

²⁷ At Palatitza, Heuzey et Daumet, *op. cit.*, pp. 226-234; Pydna (Kourino), *ibid.*, pp. 243-266, Pls. 15-21; Amphipolis, *B.C.H.*, XXII, 1898, pp. 335-345; Eretria, *Ath. Mitt.*, XXVI, 1901, pp. 339 ff.; Lete, *B.S.A.*, XXIII, 1918-19, p. 40, Pl. III; Laina, *ibid.*, p. 15; Langaza, *Jb. Arch. I.*, XXVI, 1911, pp. 193-215, Pls. 2 to 6; Pella, Delacoulonche, *Berceau de la puissance macédonienne*, p. 76 and Heuzey et

The doorway (Pl. LVIII) measured 2.255 m. high, 1.235 m. wide at the bottom and 1.18 m. wide at the top. It had no parastades and no frame on the inside but on the outside a frame was stuccoed on the stones after they were put in place. Stones were set into the floor at each corner of the doorway with a distance of 1.235 m. between the sockets. Halfway between them was a stone with a raised flange for the door to butt against and a rectangular hole, 0.04 m. long, about 0.02 m. from the flange, for the bolt of the left hand (as one enters), probably the standing,²⁸ leaf to fit into. In the lintel were two rectangular holes about 0.03 by 0.07 m. and about 0.15 m. deep and measuring 0.77 m. between them. The metal had been broken out of the holes by robbers and was missing entirely.

The door was a two-leaf door of the "self closing" type such as those at Amphipolis²⁹ and, in fact, in most of the Macedonian tombs, where the upper hinge was closer to the wall and to the center of the doorway than the lower one. But, if the upper hinges or sockets were near the holes in the lintel, the great difference between their position and the position of the lower sockets is noteworthy. Each upper socket was 0.232 m. closer to the center of the doorway than the lower one. The wooden doors were of the usual type of the period,³⁰ set flush against the inner face of the wall. No trace of them was preserved except two bronze bosses³¹ and possibly 136 bronze tacks and small fragments of wood. Eleven of the tacks were found with fragments of the wood still adhering to them. In several instances, where more than one tack was found in the same piece of wood, they were placed close

Daumet, *op. cit.*, p. 251; Marmaria (Delphi), Le Bas, *Voyage Archéologique en Grèce (Itinéraire)*, I, Pl. XL. The tomb at Niausta had a vault over the burial chamber and a flat stone ceiling over the vestibule. Similar was the large tomb excavated in 1893 at Delphi in the ruins of Pylaea, cf. *B.C.H.*, XXII, 1898, p. 336, note 1. Cf. also *Arch. Anz.*, XLVII, 1932, p. 163 (Aegina); Dyggve, Poulsen, Rhomaïos, *Das Heroon von Kalydon*, 1934, pp. 34 ff. Professor Rhomaïos of Saloniki will publish another chamber tomb which he found near Palatitza.

²⁸ Cf. *Olynthus*, VIII, p. 256, note 21.

²⁹ *B.C.H.*, XXII, 1898, pp. 338-340.

³⁰ Cf. *Olynthus*, VIII, pp. 252 ff.

³¹ Dm. 0.045 m. H. 0.011 m. Similar to *Olynthus*, X, no. 1111, Pl. LXXI.

together with the heads tangent. They appear, therefore, either to have been purely decorative or to have held a covering such as thin leather. They were about 0.015 m. long with flat heads of about 0.013 m. diameter. The wood was apparently considerably thicker than the length of the tacks. While these tacks might have belonged to the door, there is no parallel example for it and they might equally well have been part of a coffin, bier or large chest.

After the burial the door had been blocked by four large rectangular stones stacked against the outer frame. The tombs were similarly blocked at Koul-Oba, Vathia, Amphipolis, Pella, Langaza, and Palatitza. At Koul-Oba and at Amphipolis, as at Olynthus, the doorways were found not closed entirely to the top when they were excavated and robbers had entered the tombs over the stones.

The robbery of the tomb at Olynthus must have taken place at an early date, before the roof had caved in. It was probably very soon after the fall of Olynthus in 348 B. C. that the robbers dug into the mound, removed the topmost of the four stones (Pls. LVI and LVIII) that blocked the doorway, knocked in the door, if it had not already fallen, and entered to pillage the tomb of all they could get, including the hinges and other metal from the door. Two bronze bosses from the door were left, either because they were considered not worth the trouble of removing or because they had already fallen off the door and were hidden by earth and debris; probably the latter because some other objects of value were also overlooked. The date of the robbery must have been long enough after the burial to allow sufficient earth to accumulate on the floor to hide 115 gilded beads which the robbers certainly would have carried off if they had seen them and yet before the wooden ceiling caved in, or they could not have entered at all.

Numerous fragments of bones were found. No anthropologist was present, but the excavators thought them to have been bones of some fairly large beast, such as a dog, rather than of a human being. They were disturbed but some of the bones, even some of the small ones, were fairly well preserved. Among them were

about a dozen little bones about 0.02 m. in length which could not have been part of a human skeleton. If these were human bones, then the bronze tacks could have been from the coffin, although no such tacks were found belonging to the coffins in the cemeteries, and no iron nails such as those found in the cemeteries were found here. Two or three iron nails were found but they were of altogether different shape. It is not likely that the robbers removed the body and the coffin, for anything so large and heavy could not have been taken through the hole made in the top of the doorway. A wooden coffin would have been of no value and a stone coffin could not have been removed. The tomb at Eretria had been entered and the beautiful sarcophagi pried open and ransacked of valuables, but no attempt was made to remove any part of the stone sarcophagi, which, in this case, contained the charred bones and ashes of several cremations.³²

The burial could very well have been a secondary cremation in a bronze or clay urn, or in urns, if there were more than one burial, which the robbers could easily have removed. Many of the burials in these chamber tombs were cremations. I suggest that the animal of which the bones were found was a pet buried with the deceased.

The following is a summary of the objects found in the tomb: The nozzle of a lamp of the type in Group 7, *Olynthus*, V, pp. 272-279, Pls. 199, 200, 202; a terracotta loom weight of type 7, *Olynthus*, II, p. 120; fragments of pottery which appear to be mainly black-glaze ware of local and Attic manufacture of late fifth and early fourth century date; several iron nails with small, thick heads and heavy shanks, about 0.01 m. thick and 0.12 m. or more long. They might have been in the superstructure of the tomb. Also several other irregularly shaped fragments of iron, which may possibly have been parts of the door hardware, were found and the bronze tacks described above; the bosses described above, in which parts of the iron spikes remained; a gilded bronze spiral coil 0.12 m. in diameter; many fragments of very thin bronze sheet, flat or slightly rounded, gilded on both sides, of which the

³² *Ath. Mitt.*, XXVI, 1901, p. 334.

total area preserved was about fifty or sixty square centimeters; fragments of about sixteen gilded bronze petal-like objects, the narrow ends of which terminated in wires, which were inserted in holes 0.005 m. apart in a band of bone (?), 0.0045 m. wide, which was gilded on the side toward the petals. A total length of about 0.10 m. of this band was found. One hundred and fifteen gilded beads were found, each pierced at one end, with a bronze wire projecting. Forty-five of these were drop-shaped, having the wire at the thin end; forty-five were squat, convex on top, flat at the bottom, and an incision around the outside near the bottom; twenty-four were acorn-shaped; and one was long, ovoid in section from every view. Fragments of gilded plaster, moulded into curving folds on one side, were also excavated and an arm and a foot from a small bone figurine. The foot and the top of the arm were pierced for attachments. There were numerous fragments of a thin bone plaque (0.001 m. thick) with fine cross-hatched lines scratched in one side, and a gilded pentagonal, truncated pyramid of bone with a hole through the vertical axis; two bone bosses with small holes in the flat sides; three iridescent glass bosses with small holes in the flat sides; three thin flat objects of glass, one lozenge, one rectangular and one irregular in shape; fragments of two or more alabaster of alabaster. In the vestibule, just outside of the door, was a bronze coin of the Chalcidians, Inv. 34. C. 634, *Olynthus*, IX, p. 223, no. 12, where it was probably thrown by a mourner as he left the tomb.

This coin dates the tomb in the fourth century. While only fragments of pottery were found, they point to a date rather early in the century. Since the tomb would hardly have been robbed before the fall of Olynthus in B. C. 348, and since a likely date would be shortly after that event, some time in the first quarter of the century seems logical for the construction of the tomb. That would give the wood time to disintegrate where rather thin pieces were used and exposed to the air, and the ceiling would not yet have caved in, but would have permitted enough earth to filter through to cover a number of small objects lying on the floor.

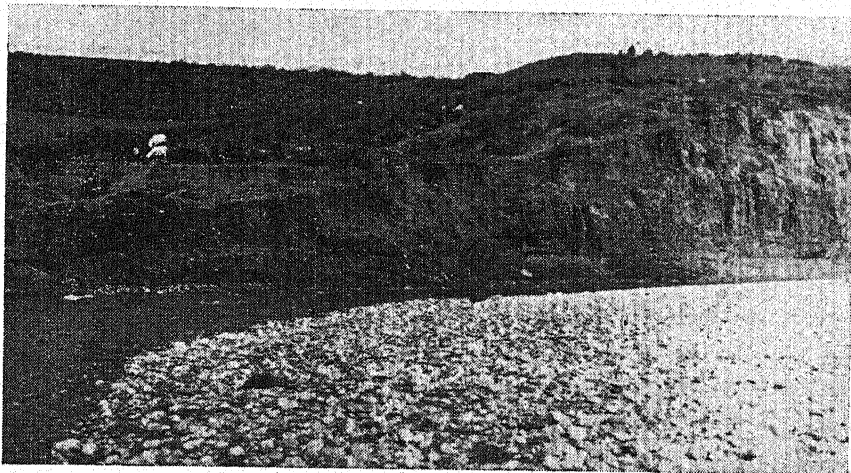


Fig. 23. View of Riverside Cemetery from West. Resetnikia River in Foreground.

PART II

COMMENTARY

CHAPTER I

THE CEMETERIES

LOCATIONS

The cemeteries at Olynthus were located outside the walls but as close to the city as conveniently possible. Riverside Cemetery was located west of the south end of the North Hill (Pls. LXII, d-LXIV). At this point a spur of the hill, somewhat lower than the city itself, extended westward about 125 meters, terminating in a high precipice (Fig. 23) at the Sandanus (modern Resetnikia) River. In the valley to the south of the spur a road led westward from a gate between the North and South Hills. Definite traces of its course are lacking, but it undoubtedly lay around the north and west sides of a high knoll west of the north end of the South Hill,

between it and the river bank, with a rather steep incline to the south and a short turn to the right across the bridge.¹ No graves have so far come to light on the south slope of the spur, which faced the road. The slope was quite steep and one would expect to find chamber tombs dug into the hillside with rather elaborate façades.

The cemetery extended from the top of the spur down the north slope to the valley, a distance of about seventy-five meters. It extended eastward from the river sixty meters, probably about seventy-five in ancient days, to a point about sixty meters from the city wall. Along the east side of the cemetery was a road, paved, at least in part, with cobblestones. The pavement ended and the road was lost as it descended the hill to the north, but it probably continued to the North Cemetery.

North Cemetery was located beyond the valley to the north, about in line with Street IX (Pl. LXV). Here the slope was gentle and more protracted and the graves farther from the city wall. Some graves were found farther to the south, in line with Street VII, and only about twenty meters from the city wall. The fact that in a number of trial trenches no graves were found indicates that the area was not densely planted with graves. One grave was found on the slopes north of the city. Though no large trial trenches were dug in this north area, this may have been part of one large burial ground extending from the West Gate around past the North Gate to the north-east corner of the city, terminating somewhere near the valley which skirted the city on the east.

The East Cemetery was located along the road to Mecyberna, the port of Olynthus, about 700 meters due east of the southern end of the South Hill. The city wall has not been discovered on this side, but it did not cross the valley, which is flooded for a period every spring. Trenches dug a few hundred meters to the east of the eastern wall, as it is reconstructed on Pl. LXIV, disclosed only sand and indications of long-standing water, lasting most of the year. The cemetery, then, was on the knoll across the

¹ In 1934 foundations were found at this point which may have been those of a wooden bridge, possibly the bridge which Philip II crossed when he was shot in the eye during the siege of Olynthus. Cf. *Olynthus*, X, p. 382.

valley from the city, similar to the cemetery at Caulonia in southern Italy.²

Trial trenches dug between the city wall and Riverside Cemetery and along the valley immediately north of this cemetery and in several places in the lower land around the South Hill revealed no graves. The only graves that were found were on the sloping higher ground. It is probable, therefore, that the whole area of the cemeteries has been located. The total probable area is upwards of 125,000 square meters. If Olynthus had an average population of 10,000³ for the eighty-four years between 432 and 348 B. C., with an average life span of thirty to thirty-five years, a total of about 17,000-18,000 persons could have been buried there. This allows an average of seven square meters per person, or a little more, and accounts for the scarcity of graves in the North Cemetery. The period before 432 B. C., when the city had a population of 2,000 or less, is easily accounted for by the density of the graves in Riverside Cemetery, where they were often superimposed three or four times. It is also certain that many graves have vanished without leaving any trace whatever.

There is, then, no reason to suspect that there were any other cemeteries, since these areas are ample to accommodate the city even if the population were much larger than estimated, but individual graves have been discovered in places other than the cemeteries. One of these was the grave of a child on the South Hill and another a chamber tomb in a mound 2,040 meters west of the city.

The intramural grave of the child was discovered in 1938 when another trench was cut across the southern part of the South Hill (Pl. LXIV, marked "S"). It was located about a meter north of the wall of a house in an area the nature of which is not precisely

² *Mon. Ant.*, XXIII, 1914, Pl. I.

³ As reconstructed, Pl. LXIV, Olynthus could have had about 1,100 to 1,200 houses. This area is the smallest the city could have covered on archaeological evidence. There could well have been other rows of blocks on the east side. A comparison with early Baltimore is interesting. Baltimore in the year 1800 A. D. had about 3,500 houses and a population of 31,514, or about nine persons per house, including slaves (Scharf, *Chronicles of Baltimore*, Baltimore, 1874, p. 292).

known since this was only a trial trench and not much of the surrounding area was uncovered. It may have been a large room, but was more likely a court or the angle of a street, for the wall to the south of the grave was apparently the north outside wall of a house with rooms, including a bath room, to the south of it. A similar wall extended at right angles to it about four meters east of the grave.

Interment within the city, or even within the house, was rather general in prehistoric Greece⁴ but in classical Greece it was uncommon. Most of these early interments within the city were not in communal cemeteries but were individual or family burials,⁵ not unlike many in early America, especially in the country or in small towns. The few intramural burials of the classical age were likewise mainly individual, but cemeteries were also known. Sparta was said to have had a cemetery on the edge of the agora, near the temples,⁶ and some of the interments have been found.⁷ Tarentum and Megara also seem to have had intramural cemeteries.⁸ At Al Mina in Syria, on the Orontes River, many burials of adults and children were found under the floors of late fifth and fourth century dwelling and business houses,⁹ and at Olbia in South Russia, on the island of Berezan, burial pits were found among and in the houses of the late seventh and early sixth centuries B.C.¹⁰ Frequently individuals and groups were honored with intramural burial for some great benefaction. The Megarians who died in the Persian War were honored with burial within the walls at Megara,¹¹ Aratus at Sicyon, a city which otherwise strictly forbade intramural burial,¹² Timoleon at Syracuse,¹³ Brasidas

⁴ Cf. Fimmen, *Die Kretisch-Mykenische Kultur*, Leipzig, 1921, p. 54, for archaeological evidence, to which add Blegen, *Zygouries*, Cambridge, Mass., 1928, p. 42, and *Korakou*, Boston, 1921, p. 100; *Ath. Mitt.*, LIX, 1934, pp. 160 f. (Corfu).

⁵ As the Pseudo-Plato said, "We used to bury in our houses," *Minos*, 315 D.

⁶ Plutarch, *Lycurgus*, 27.

⁷ *B.S.A.*, XIII, 1906-7, pp. 155 ff.

⁸ Polybius, VIII, 30 (Tarentum); Pausanias, I, 43, 3 (Megara).

⁹ *J.H.S.*, LVIII, 1938, pp. 13 and 155 f.

¹⁰ Minns, *Scythians and Greeks*, Cambridge, 1913, pp. 416 and 452.

¹¹ Pausanias, I, 43, 3.

¹² Plutarch, *Aratus*, 53.

¹³ Plutarch, *Timoleon*, 39.

at Amphipolis,¹⁴ Euippus and Ischepolis in the prytaneum at Megara,¹⁵ Coroebus and Arsippus in the agora at Megara,¹⁶ Talthybius in the agora at Aegium in Achaea,¹⁷ Telephus at Elea in Boeotia,¹⁸ Antinoë in the prytaneum at Mantinea,¹⁹ and Euchidas even in the precinct of the temple of Eucleia at Plataea.²⁰

As persons were sometimes buried in the city as a mark of honor, they were also buried away from the city as a mark of dishonor. Pausanias says: "Clytaemnestra and Aegisthus were buried a little way outside the wall, for they were not thought worthy to be within, where Agamemnon lay and those who fell with him."²¹

Most of the intramural burials, both in prehistoric and in historic Greece, were those of children. The reason for this seems to be that children were considered to be of less importance than older persons.²² Infants were often buried in houses, when adults were buried beyond the city walls; they were at times inhumed, while adults were cremated; they were often buried in shallower earth or in a simpler manner and with less ceremony than adults. At Vroulia, Rhodes,²³ in the Archaic Age children up to about six years of age were interred in jars while those over that age were generally cremated. Likewise in Phylakopi in Melos infants up to several years of age were buried in pithoi laid flat in shallow graves within the city while older persons were buried in rock-cut tombs outside.²⁴ In early Rome infants up to forty days of age were buried in *loculi* under the eaves of houses.²⁵ And in India

¹⁴ Thucydides, V, 11.

¹⁵ Pausanias, I, 43, 2.

¹⁶ *Ibid.*, I, 43, 8; 44, 1.

¹⁷ *Ibid.*, III, 12, 7; VII, 24, 1. He also had a mound (cenotaph) at Sparta.

¹⁸ *Ibid.*, IX, 5, 14.

¹⁹ *Ibid.*, VIII, 9, 5.

²⁰ Plutarch, *Aristides*, 20, 5; Margherita Guarducci, *Studi e Materiali*, XI, 1939, pp. 58-61.

²¹ Pausanias, II, 16, 5-7.

²² Plato, *Republic*, X, 615 C; Pliny, VII, 72. They also received different treatment in Hades from adults (Vergil, *Aeneid*, VI, 427-429; Lucian, *Cataplus*, V; Plutarch, *De Genio Socratis*, 590 f.; Clement, *Eclogue*, 41 [48]).

²³ Kinch, *Fouilles de Vroulia*, Berlin, 1914, p. 35.

²⁴ *B.S.A.*, XVII, 1910-11, pp. 6-9.

²⁵ Lewis and Short in *Harper's Latin Dictionary*, s. v. "Suggrundarium."

"only infants are buried, and adults are burned."²⁶ A Late Hellenistic chamber tomb at Mycenae had a child buried in a recess in the dromos of the chamber.²⁷ Other such recesses were found elsewhere.²⁸ Naturally enough many of the skeletons were too small and fragile to survive to our day, but from analogy one may assume that the recesses were also for the burial of infants. The inference is that the infant was not of sufficient importance to warrant the reopening of the tomb chamber for the burial. One must not press this inference too far, since we do not know the customs of the times or the individual circumstances surrounding the burial; the child may have been buried outside because it was illegitimate or a slave child or for some other unknown reason. In Motya in Sicily, a Phoenician city under Greek influence, where the cemetery was carefully placed outside the city walls, many infants were buried in a cemetery within the walls which was primarily destined for small animals.²⁹ The theory that infants were deliberately buried close to the houses "that the soul of the prematurely deceased might be reincarnated in a new member of the family," as Farnell thinks,³⁰ seems to be unsubstantiated in view of the generally cheap and hasty manner of the burials. The burial jars had often been broken jars which were of no further use for anything else. The graves of children were often shallower than those of older persons.

If burials of infants were of less importance than those of adults, the question arises in what respect they were of less importance. Were they considered of less social importance? Or were they feared less? Or were they thought to cause less pollution, less miasma than older persons? On the whole less funeral furniture was found with infants, but the difference was not great. At Olynthus, and also at other sites, the furniture was less care-

²⁶ E. W. Hopkins, *The Religions of India*, Boston, 1895, p. 364.

²⁷ Wace, *The Chamber Tombs at Mycenae*, Oxford, 1932, pp. 114-20.

²⁸ Cf. Blegen, *Prosymna*, I, Cambridge, 1937, pp. 74, 234 f.; M. Nilsson, *The Minoan-Mycenaean Religion and Its Survival in Greek Religion*, Lund, 1927, pp. 517 ff.

²⁹ Whitaker, *Motya*, London, 1921, pp. 257-60.

³⁰ Farnell, *Greek Hero Cults and Ideas of Immortality*, Oxford, 1921, p. 4, note b.

fully placed in infant graves, but because of their small size and the general lack of rule for the placing of objects no conclusion can be drawn. Many of the objects found with infants were articles of jewelry, evidently thrown into the grave at the last minute, in all probability by the mother, for they were of a size to fit a mature woman. There may have been, on the whole, slightly less sentiment attached to infants, possibly because of the rather high mortality rate among them, and they may have been considered of slightly less importance religiously than older persons; but the main difference is due to the realization that the corpse of an infant would very soon disintegrate and there would be very little danger of dogs digging it up or of it causing a stench in the vicinity; and it could therefore be buried within the city walls without giving offense.

Consciousness of the miasma produced by the dead is one of the elements which incite fear of the ghost, ancestor worship,³¹ and the prohibition of intramural burial. But burial outside the city is due directly to the physical pollution of the decaying corpse and not to fear of the ghost of the dead. The facts that there were intramural burials in every century and that the cemeteries were placed as close as possible to the cities prove the lack of such fear. Had there been fear of the dead there would have been no need to enact laws defining the minimum distance a burial might be from the city walls.

The presence of dead bodies pollutes the area, especially if it is sacred. Thus in the reign of the Peisistratids and again in 424 B. C. such national shrines as the island of Delos, the birth-place of the deities of culture and purity, were cleared of the remains of the dead—even of those who had been dead for centuries. The Greeks did not carry this rationalization so far as did the Persians, who strictly forbade burying in the ground or burning with fire lest the ground or the fire be polluted.

A more weighty reason for extramural burial than pollution was the element of space. Most of the pre-Greek or early Greek towns were not too densely populated to permit an occasional

³¹ Farnell, *loc. cit.*

burial in or near the house, but with the growth of urban population and the strengthening of city walls because of an advancement in offensive technique in warfare there simply was not room enough to bury the dead in the city. Consequently cemeteries were established along the highways outside the gates. No sufficiently thorough cross section has been uncovered of very early civilization to determine to what extent burial was made in the city, but a great impetus toward extramural burial must have originated with the custom of burying in beehive and other chamber tombs, which obviously could not be in the city. Cities like Sparta, which had no walls until a late date, could continue to bury inside, for, the greater the population became, the larger the circuit of the city, without the original area necessarily becoming any more densely populated. The resident population of Al Mina was so small that the few burials under the floors of the houses and shops were not overcrowding. The stone sarcophagi give no hint of poverty or a low element of civilization.

The final determinant was the introduction of cremation. The first cremations seem to have taken place in chamber tombs outside the cities.³² But, about the tenth century in Greece, the custom of primary cremation arose, in which the cremation took place in the open trench in which the body was to be buried. An awful stench arose from the burning flesh and bone.³³ The stench is doubtless the reason for the Roman laws concerning the distance that the cemeteries must be from the cities.³⁴

Olynthus followed the normal customs of the times with the cemeteries as close as possible to the city walls and especially to the gates and roads leading from them. The fourth century child's grave on the South Hill cannot be explained, but one need not be surprised at its location there. It may or may not be significant that it was located among the homes of the Bottiaean, the inhabitants of old Olynthus before the Persian Wars.³⁵ This, together

³² Cf. *Annuario d. Sc. Arch. di Atene*, VI-VII, pp. 83, 238, 341; *Clara Rhodos*, I, 1928, pp. 60-5; Blegen, *Prosymna*, I, p. 242.

³³ The stench from the burning bodies on the Ghats in India is well known.

³⁴ Cf. Cassius Dio, XLVIII, 43, 3; *C.I.L.*, II, 5439, 2, 2, 13-16.

³⁵ Cf. *Olynthus*, IX, pp. 300 ff.

with the chamber tomb, 2,040 meters west of Olynthus, as well as the large area over which the cemeteries were spread, indicates that burial was not very strictly confined.

MONUMENTS

While the precise reason for burying the child on the South Hill is not known, the chamber tomb is a memorial to an individual Olynthian and the only individual memorial found. One would hardly believe that in the fourth century there should have been no tomb-stones at Olynthus, yet only one inscribed fragment of a stele was excavated and the only other stone found which might have been a grave-marker was the top, or bottom, of a small octagonal stone,³⁶ the date and purpose of which is anything but certain. Though it was found among the graves, it is of quite an unusual shape for a sepulchral monument. Sepulchral stelae could have been carried away after the destruction of Olynthus, but one would expect to find at least a few fragments in the ground.³⁷ At Ialysus, Rhodes, no markers or mounds were noticed above the ground,³⁸ and at Macri Langoni only a few,³⁹ but at Vroulia rough stones were found on most of the graves.⁴⁰ If stelae had been very numerous and had been carried away for use on other graves or in buildings, some of them should have turned up in the neighborhood. A total removal can hardly be assumed, since the base of a larger monument and one stone of the superstructure were left. Furthermore, many graves were superimposed, especially in certain sections of Riverside Cemetery. Grave 448, for instance, was

³⁶ Pl. LXI, 8. Preserved length of the stone, 0.15 m. Diameter at the unbroken end, 0.085 m. In *Trans. Amer. Phil. Assoc.*, LXV, 1934, p. 133, no. 10, I published part of a grave stele with letters painted in red and found near grave 31 (see above). This is the only inscription found so far in the cemetery, though *ibid.*, p. 133, no. 9, found outside the cemetery, may also have been a grave stele. Unconcealed as they would have been by any debris of destruction, such stones would have fallen an easy prey to plunderers or could easily crumble away or disappear.

³⁷ A few fragments of flat stones were found in the graves and at first thought to be stelae (cf. *A.J.A.*, XXXIX, 1935, pp. 226 f. and grave 240).

³⁸ *Clara Rhodes*, III, 1929, p. 13.

³⁹ *Ibid.*, IV, 1931, p. 14.

⁴⁰ Kinch, *Fouilles de Vroulia*, p. 55.

placed over grave 449. Grave 449 is not datable, but grave 448 dates in the first quarter of the fourth century B. C. Grave 452, not datable, was over grave 453, probably fifth century. Grave 450, a cremation, was placed over graves 448, 452 and 451 (undatable) and is dated by a scyphus and a lecythus in the second quarter of the fourth century. And grave 447, also dating in this period, was placed over grave 450. These last two must have been burials dating within a few years of each other. And at least three graves, 448, 450 and 447, were superimposed within a maximum time of fifty years. A glance at the map (Pl. LXIII) shows that graves were not placed in any sort of relation to surrounding and older graves. There are about half a dozen instances in which the second grave is not over a quarter of a century older than the first. The superimposed graves preclude both monuments of anything like a permanent sort and mounds for many of the graves.⁴¹ Even the multiple burials (graves 348, 350 and 364) dating about 425 B. C. have a number of graves heterogeneously placed over them and were not recognized a generation or two after the burial.

The base of the monument mentioned above was found at a depth of about 0.40 m. below the present surface at the south-east corner of Riverside Cemetery, some 50 m. from the city gate. The top of the foundation must have been level with the surface of the ground in antiquity, for it was level with the pavement of the road which lay near-by (Pl. LXII, d). It consisted of eleven re-used or cast-off blocks of coarse local conglomerate. Six blocks, ranging in width from 33 to 49 cm., formed a wall 3 m. long, extending from north-east to south-west. The south-east sides of the stones were dressed and formed a straight edge. At the ends of this wall were projections to the south-east, the left one 82.2 cm. long and the other 78.6 cm. The left wing consisted of two stones and the right of three. The six blocks in the rear wall and the first in the projections were connected by lead-covered clamps of "Z" shape hammered down with a concave-faced tool. The large stones at the ends of the wings and the small one in the middle of the right wing were not secured with clamps. See Plates LXI, 9; LXII, a, b, and c.

⁴¹ Cf. *Ath. Mitt.*, XVIII, 1893, p. 81, for a similar situation in Athens.

The monument was not a gate, though its size and location were favorable for such. The foundation was not the sill of a gate, nor was it the foundation for the sill, for it was too high, too narrow and too uneven on one side. It was clearly the foundation of some structure, a monument to be seen from one side, the south-east, that is, from the city gate from which it was in plain view. What type of monument it was is much more uncertain, though the range of types can be narrowed down somewhat. The monument was not high. Since the foundation was narrow, only 1.20 m. wide across the wings, and set on the earth which was somewhat gravelled at that point, a structure of any considerable height would have fallen over. The tall stelae in the Cerameicus at Athens, for instance, all had comparatively large bases. The height of our monument could hardly have exceeded two meters. Nor could it have been very heavy, for the narrow foundation⁴² would have sunk into the ground under a heavy burden and upset the monument. The projecting wings were not spanned by a stone architrave, for any stone long enough to span the distance between them (2.577 m.) would have been too heavy for the foundation. The monument must have been a fairly well integrated structure resting on the rear wall and the end stones of the projecting wings. The end stones were held in place by the superstructure. In the top of each of these stones was a cutting, the left one 23 by 43.4 cm. and the right 23.3 by 46 cm. and 4 to 5 cm. deep, into which the monument had been leaded. When the foundation was uncovered the lead was still in place in the right block and there were traces in the left. The cuttings and the marks in the lead being rectangular, the objects on top must have been rectangular, possibly pilasters or rectangular statue bases. The marks in the lead indicate that they had dovetail shaped tenons around which the lead was poured,⁴³ running under the tenon in the right block. The upper surfaces of the blocks between these bases and the rear wall were dressed for only about 30 cm. from the inner edge, the outer being

⁴² The stones were from 0.336 to 0.492 m. wide.

⁴³ Such splaying tenons are not common but they do occur when the tenon is short in a comparatively large monument. Cf. Kieseritzky and Watzinger, *Griechische Grabreliefs aus Südrussland*, Berlin, 1909, Pls. III, 72, XX, 286.

left rough and slightly higher. The left block had a rectangular cutting the same depth as the others and 23 cm. wide running back from the front edge for 16 cm. No lead was noticed. Small holes about 20 cm. from the front edge of the first and third blocks of the rear wall, counting from the left, may have served as dowel holes. They are just visible in the photograph (Pl. LXII, b). A possible reconstruction is shown in Plate LXI, 9.

Lying in the angle formed by the right wing and the rear wall was a stone (Pl. LXII, b and c) of the same local conglomerate as the foundation, measuring 0.652 by 0.445 by 0.203 m., with a moulding along one of the narrow sides, measuring 0.063 m. deep and 0.073 m. high.⁴⁴ The narrow face opposite the moulding was not dressed smooth enough to fit against another stone and must therefore have been exposed on some back part of the monument. The moulding was a *sima reversa* of good fourth century style beneath a rather thick fascia. Miss Shoe gives this moulding as a base moulding, but here it is certainly a crown moulding. The stone is as wide as the foundation at its widest part. The wall was certainly not as wide as this at any point and therefore this stone could not have been part of the wall proper. It has no holes for dowels or clamps. It might have been placed somewhere in the center of the back wall. Perhaps the front end pieces held stelae or posts in front of an exedra.

The date of the monument is fourth century B. C. "Z" clamps such as those used in the foundation are generally early, being replaced in the early fifth century by "I" clamps, but they do occur later, especially in foundations⁴⁵ and in the substructures under the cella walls. "Z" clamps were also used in the fourth century chamber tomb at Olynthus.⁴⁶ The moulding is similar to a frieze crown moulding from Epidaurus⁴⁷ and a geison soffit moulding from the temple of Apollo at Delphi⁴⁸ and would date

⁴⁴ Lucy Shoe, *Profiles of Greek Mouldings*, Cambridge, Mass., 1936, Pl. LXXXVI, 34.

⁴⁵ Cf. *Fouilles de Delphes*, II, *Topographie et Architecture, La Terrasse du Temple*, p. 22, fig. 21; p. 86, fig. 70 E a and b, and p. 87 (Pl. III) where one of two clamps in each step of the crepis was a "Z" clamp.

⁴⁶ Cf. p. 118 and Pls. LIV, LVII.

⁴⁷ Shoe, *op. cit.*, Pl. XXVI, 7.

⁴⁸ *Ibid.*, Pl. XXX, 20.

in the fourth century according to Miss Shoe: "Depth greater than the height and the upper curve smaller than the lower. . . . This form of the geison soffit does not occur before the fourth century and almost never after that period."⁴⁹ A date after 432 B. C. is indicated also by the position of the monument. It faces the West Gate and the North Hill rather than the South Hill as one would expect if it had been built before the city expanded to the North Hill.

CHRONOLOGY

Riverside Cemetery, however, dates before 432 B. C. Some of the graves may be dated by their objects to the latter part of the sixth century. Although Olynthus was occupied in Neolithic times, no graves of this period have yet come to light. The burial place for this period may have been on some part of the hills later occupied by the city and therefore obliterated. The pottery found in the city, especially on the South Hill, indicates that the city was occupied from at least the seventh century B. C. and probably earlier,⁵⁰ but no graves have been found anywhere at Olynthus which can definitely be dated earlier than the end of the sixth century. The earliest graves are in the Riverside Cemetery. The East Cemetery dates from the end of the fifth century, and the graves in the North Cemetery, with the exception of one or two from the fifth century, belong mainly to the later days of the city's existence. Although a few inhabitants may have continued to live at Olynthus at the north end a few years after 348 B. C., the graves seem to end quite abruptly at that date. Grave 92 contained a coin of Philip II, which dates 359 to 336 B. C., but it may be dated before 348, since eleven years are long enough for one of Philip's coins to find its way into an Olynthian grave, especially since an alliance was established in the year 356 B. C.⁵¹

Except for the *enchytrismoι*, which can be roughly dated by their shapes, the graves are datable only by their contents. There

⁴⁹ *Ibid.*, p. 68.

⁵⁰ Cf. *Olynthus*, V, pp. 61 ff.

⁵¹ Cf. *Trans. Amer. Phil. Assoc.*, LXV, 1934, pp. 103-22.

is no difference in the types of graves from the earliest to the latest or in their construction or arrangement. Even the roof tiles which serve as grave coverings, though they display considerable variety in any age, are the same for the early graves as for the late ones. A description of the graves, therefore, is applicable for the whole period from the sixth century to the middle fourth.

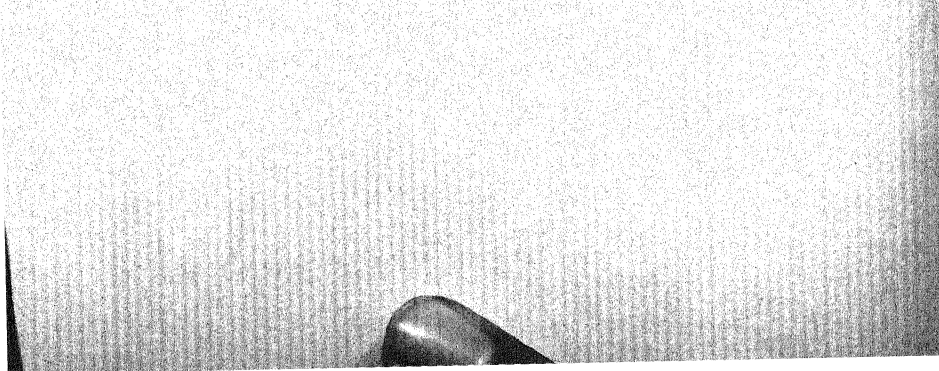
ARRANGEMENT

Quite typical of ancient Greek cemeteries, the graves were not arranged in any systematic order of rows or groups. No parts of the cemeteries were older than any other parts but the graves were dispersed here and there throughout the cemeteries in all ages, falling more or less into clusters with only isolated graves between.

The reason for this grouping was not altogether accidental but was due to the nature of the ground. The ground was composed of strata of varying amounts of clay and gravel, and the graves were found in the softer earth. This was most strikingly borne out in Riverside Cemetery, where the hill was steeper and the strata more clearly defined (Fig. 23, p. 125). The top stratum, of which not much was left, was a rather hard clay. Below there was a stratum of softer earth, another of clay, very hard in spots, a thick stratum of gravel and another of clay. The patch of clay at the crest of the hill was practically barren of graves. The part of the soft stratum that protruded from under it was in most places quite densely packed with graves. The hard area in the next stratum contained only one grave, but the gravel area which protruded from under it was, in places, literally crowded with graves. Down-hill from this stratum the graves were not many.

DEPTH OF GRAVES BELOW THE SURFACE

The graves were rather shallow in the ground, much shallower than those on Rhodes, the average depth being not over a meter. The depth varied. In soft ground it was fairly deep but in hard ground very shallow. In the soft gravel ground they were rather



deep at the up-hill side, some over two meters, but at the north side, where the hard stratum below cropped out, they were so shallow that many were almost entirely washed away with the top soil. The surface at this point is somewhat lower now than in antiquity (cf. Pl. LXI, Fig. 1). Apparently it was sufficient to bury only at such a depth that the stench could not rise to the surface, if animals dug up the corpse. There is no noticeable difference in the various types of graves. Cremations and the various types of inhumation burials were all at about the same depth, but children and infants were buried on the average in slightly shallower earth than adults. There was no difference in depth between *enchytrismoi* and tile coverings or other forms of burial for children.

Successive burial in the same spot, which occurred frequently, seldom cut down through the earlier burial. Generally, when the grave digger came upon an earlier burial he stopped digging and placed his grave on top of the earlier one. All superimposed burials were accidental and had no relation, one to the other. There were no graves stacked one on another such as were found at Syracuse.⁵² Grave 597 was the only grave containing two skeletons deliberately superimposed, but they were the skeletons of a man and a woman in the same stone sarcophagus. This and grave 592, where two infants were buried under a gabled tile covering, and probably grave 524, were the only instances where members of the same family were buried together, unless the multiple burials contained members of the same family. The two infants in grave 592 and probably those in grave 524 were buried at the same time; the adults in grave 597 probably were not.

POSITION AND ORIENTATION OF CORPSE

All corpses rested on their backs with legs extended, except in grave 486, an adult lying supine with the legs bent back at the knees, apparently to cover as much of the corpse as possible with one large roof tile (1.10 m. long).⁵³ The hands were generally at

⁵² I. e., *Not. Scav.*, IV, 1907, p. 743, fig. 3.

⁵³ Cf. *A.J.A.*, XXXVII, 1933, p. 567, fig. 11, for a skeleton with knees bent to fit into a stone cist at Corinth.

the sides, though frequently one or both were placed across the thighs or the stomach, especially if some object was held in them. A few burials had one or both hands to the chin. The head was facing upward, possibly frequently on a pillow or rest. If the head were propped up, it would be looking toward the feet and would illustrate the expressions used by Aelian, "To bury looking toward the west,"⁵⁴ and by Plutarch, "The Megarians bury turning the body to the east, but the Athenians to the west."⁵⁵ The skulls of the Olynthians had almost invariably been crushed or shoved down between the shoulders, and a few were turned more or less on one cheek; but originally they had been placed with the face up and had shifted as the grave settled.

Most of the corpses were placed with the heads at the eastern end of the grave and the feet westward. The following table (Fig. 24) is a summary of the orientation of the graves showing the direction of the ends at the head:

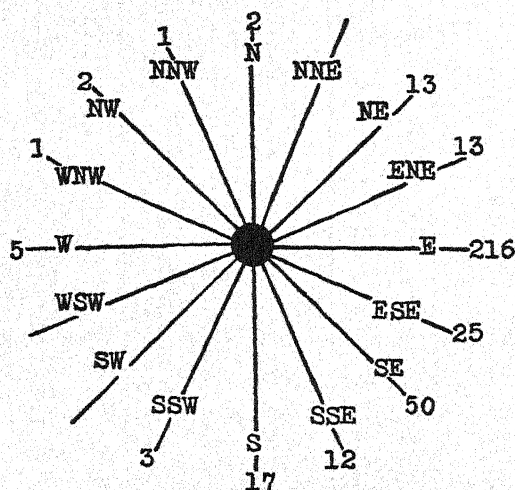


Fig. 24.

⁵⁴ Aelian, *Var. Hist.*, V, 14.

⁵⁵ Plutarch, *Solon*, 10, 4; cf., however, Diogenes Laertius, I, 2, 48 ("In certain graves excavated in Salamis corpses turned toward the east, as was the burial custom of the Athenians"). See also the scholium on *Iliad*, XIX, 212 (with turning of the feet of the dead to the doorway). The corpse was carried out feet foremost so that the soul would be prevented from returning to haunt the earth, as among the Pehuenches in South America. Cf. also Persius, III, 105.

In addition two graves had the head north or south, six north-east or south-west, six east-north-east or west-south-west, thirty-eight east or west, two east-south-east or west-north-west, and one south-east or north-west. In these it was not possible to determine the head end. The orientation of sixty-four graves (mostly cremations) could not be determined at all. *Enchytrismoi* are not included in these figures. They were most frequently placed with the mouths of the vases to the east, but more freedom of orientation was displayed (Fig. 25):

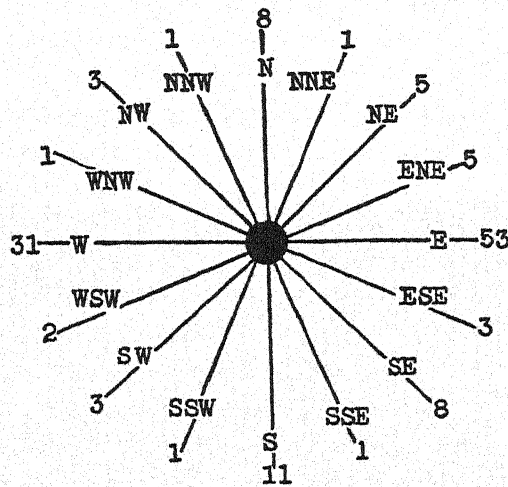


Fig. 25.

One had the head end east or west, one south-east or north-west, twelve up, two down, and in ten cases the orientation was unknown.

In very few cases was there any evidence as to the direction of the head in the vessel. Thirty-six or thirty-seven burials contained skeletal remains but in most of them the traces of bone were so meagre that the orientation was uncertain. One barrel-shaped vase, grave 354, contained some fragile bones of a young child lying with the head at the bottom of the vessel and the feet at the opening, which was at the west. Grave 284, an amphora, likewise was lying with the mouth at the west and contained an infant lying with the head at the east. Grave 275 contained a skeleton

with the head at the mouth of the vessel, which was at the east, and in graves 87 and 207 the infants were similarly placed but the vessels were turned with the mouths to the north and west respectively.

Except for the multiple burials, the topography had no part in the orientation of the graves. The three multiple burials were placed along the hillside (pp. 70-75) so that they were level and nearly the same depth at both ends. Grave 364, the longest grave, with twenty-six interments, was a little shallower on the north-east end, and a few skeletons were partly disintegrated, but the shorter graves were quite uniform in depth. The heads, of course, were deeper than the feet, being in the up-hill direction. Most of the individual graves, too, were placed with the heads into the hill. On the steep part of the hill the difference between head and feet was considerable (cf. Pl. LXI, Fig. 1).

On Rhodes, on the contrary, the lay of the land and the condition of the soil seem to have played a large part in orienting the graves.⁵⁶ At Macri Langoni the graves in the southern part of the cemetery, which was quite level, were oriented in all directions, but in the northern part they lay lengthwise with the hillside, with the heads at the east. At Marmaro⁵⁷ and at Ialysus⁵⁸ they also extended along the hillsides with the heads mainly at the south, and at Vroulia with the heads at the south-east.⁵⁹

The burials at Caulonia, which were on a gentle slope, also had the heads at the south,⁶⁰ those at Corinth at the south or east,⁶¹ and at Al Mina at the north or east.⁶² The inhumations in the polyandron of the Thespians had the heads at the east⁶³ and the burials at Aphiona, Corfu, at the west, or, if the heads were at the north or south, they were turned with the faces to the east.⁶⁴

⁵⁶ *Clara Rhodos*, IV, 1931, p. 10.

⁵⁷ *Ibid.*, VIII, 1936, p. 64.

⁵⁸ *Ibid.*, III, 1929, p. 10.

⁵⁹ Kinch, *Fouilles de Vroulia*, pp. 34 ff.

⁶⁰ *Mon. Ant.*, XXIII, 1914, p. 911.

⁶¹ *A.J.A.*, XXXII, 1928, p. 491; XXXIII, 1929, p. 539; XXXIV, 1930, p. 426.

⁶² *J.H.S.*, LVIII, 1938, pp. 155-7.

⁶³ *Πρακτικά*, 1911, p. 154.

⁶⁴ *Ath. Mitt.*, LIX, 1934, pp. 218 ff.

The burials at Athens⁶⁵ and at Chatby⁶⁶ showed no rule of orientation.

Apparently, then, each locality made its own rules about the orientation of burials. This is also the impression one receives from Plutarch and Diogenes Laertius.⁶⁷ Each locality also made its own rules about the depth of burial and the construction of the graves. In no case were the rules stringent.

⁶⁵ *Ibid.*, XVIII, 1893, pp. 73 ff.

⁶⁶ Breccia, *La Necropoli di Sciatbi*, Cairo, 1912, I, p. xxiv and II, Pl. A.

⁶⁷ Plutarch, *Solon*, 10, 4; Diogenes Laertius, I, 2, 48.

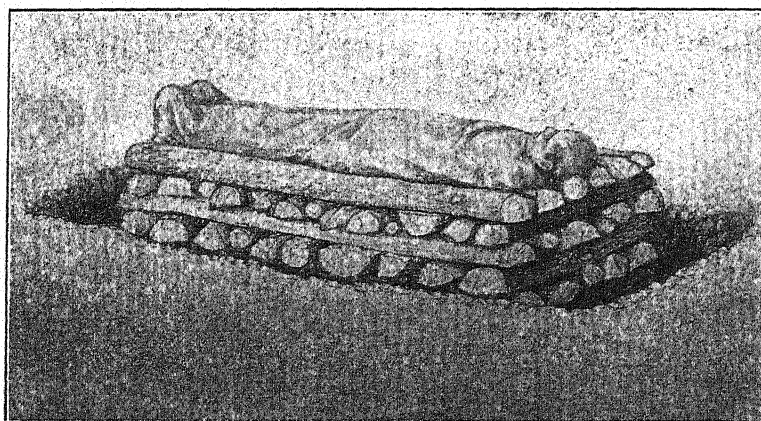


Fig. 26. Corpse Ready for Cremation.

CHAPTER II

CREMATION

Approximately fifty-three of the six hundred graves at Olynthus were cremations. The number is uncertain, for in some cases it is not possible to ascertain whether a burial was a cremation or an inhumation, and in other cases whether it was one grave or more. For instance, was the chamber tomb a cremation burial? Was the terracotta sarcophagus in grave 569 a cinerary urn or was it a coffin for an infant? In grave 182 three amphorae were found, all containing some ashes and bones; were they amphorae of three burials or of one? Many burials, to be sure, have vanished without leaving any evidence for us, and there is no way of telling what percentage of these undiscovered graves were cremations. In all probability the number of cremations which have left no trace is not large, for primary cremations left their mark of fire, and secondary cremations were usually in earthenware or metal containers, which did not disintegrate. Even wooden coffins or boxes used to contain the ashes would have left their nails, as they

did in the case of inhumations.¹ The number of cremations, at any rate, was not over nine per cent. of the total number of burials.

The custom of cremating varied considerably in different localities both in its method and in the frequency of its practice. At Athens 53 (8 secondary) out of 186 fifth or fourth century burials were cremations.² One of 19 Dipylon graves was a cremation.³ At Caulonia 5 out of 130 graves ranging in date from the sixth to the fourth century were cremations.⁴ No cremations were reported from Corinth. At archaic Thera all burials of adults were secondary cremations.⁵ On the island of Rhodes the graves ranging in date from the eighth to the fourth century were as follows: At Nisiro 22 out of 40 graves were cremations;⁶ at Ialysus 96 (10 secondary) out of 341;⁷ at Macri Langoni 19 out of 260;⁸ at Marmaro 7 out of 83;⁹ at Vroulia 30 out of 32 graves.¹⁰ At Samos 2 out of 161 graves were cremations¹¹ and at Kerch 2 out of 81 graves.¹² But at Olbia in Roman times 139 out of 162 graves were cremations.¹³ At Hellenistic Myrina inhumation was much more frequent than cremation,¹⁴ and at Chatby there were about 8 to 10 inhumations to each cremation.¹⁵

About a fourth of the Olynthian cremations were those of chil-

¹ In Scotland in the Early to Middle Bronze Ages wooden "boxes" containing cremated remains were joined together by means of tongue and groove instead of nails. Cf. *Wiltshire Archaeological and Natural History Magazine*, XLIV, 1929, p. 103, and *Antiquity*, XV, 1941, p. 82; cf. C. Watzinger, *Griechische Holzsarkophage aus der Zeit Alexanders des Grossen*, Leipzig, 1905, pp. 66 f., for dowels in Greek coffins.

² *Ath. Mitt.*, XVIII, 1893, pp. 78 ff.

³ *Ibid.*, pp. 104 f.

⁴ *Mon. Ant.*, XXIII, 1914, pp. 906-941.

⁵ *Ath. Mitt.*, XXVIII, 1903, pp. 281 ff.

⁶ *Clara Rhodos*, VI-VII, 1932, pp. 471 ff.

⁷ *Ibid.*, III, 1929, p. 8.

⁸ *Ibid.*, IV, 1931, p. 10.

⁹ *Ibid.*, VIII, 1936, p. 64.

¹⁰ Kinch, *Vroulia*, p. 35.

¹¹ J. Boehlau, *Aus Ionischen und Italischen Nekropolen*, Leipzig, 1898, p. 12.

¹² Minns, *Scythians and Greeks*, p. 422.

¹³ *Not. Scav.*, III, 1895, pp. 47-66.

¹⁴ Pottier et Reinach, *La Nécropole de Myrina*, Paris, 1887, p. 72.

¹⁵ Breecia, *La Necropoli di Sciatbi*, p. xxiii.

dren. The known and probable cases are 20 adults and 5 children. The ages of 28 cremations are not certain but they were more likely adults than children. There was no evidence of any cremation of infants. The percentage of adults was higher than for inhumations, as the following table indicates (infants and children are counted together):

	Adults	Children	Unknown age	Totals
Cremations	20	5	28	53
Flat tile A.....	8	4	1	13
Flat tile B.....	11	12	4	27
Tile cists	4	..	..	4
Stone sarcophagi	3	2	..	5
Wooden coffins	22	11	..	33
Unprotected burials.....	124	20	3	147
<i>Enchytrismoï</i> .....	..	165	..	165
Miscellaneous types	5	14	2	21

The proportion of adults for unprotected burials is unusually high because the graves of so many infants and small children have vanished entirely, and the proportion of children is high for miscellaneous types because 10 infants buried under parts of roof cover-tiles are included and because more liberty was used for infant burial in general.

The sex of the cremated persons is not known, but if the grave furniture is an indication, they were mostly women.

Grave furniture of some kind was found in 47 of the 53 cremations (88.68%), and it is not inferior in quality or less abundant than in any type of inhumation burial. Of 50 graves containing strigils, three were cremations, all adults or adolescents. Astragali were found in one child and two adult cremations, one adult cremation containing 190 of them. The cremations contained more pottery than other objects in comparison with inhumations, and the pottery was mainly of the less ordinary kind. The following table gives the data on some of the objects:

Articles	Total number of burials con- taining them	Number of cre- mations con- taining them	Percentage
Covers	4	3	75
Hydriae.....	6	3	50
Scephi.....	82	26	31.7
Pyxides.....	12	4	33.3
Canthari	7	2	28.6
Cylices.....	14	3	21.4
Lecythi	79	11	14
Alabastra, etc.....	6	1	16.6
One-handled bowls.....	39	6	19.3
Pitchers.....	33	5	15
Bowls without handles....	11	2	18.2
Amphorae	9	1	11
Two-handled bowls	31	3	10
Saucers	41	3	7.3
Terracottas.....	60	6	10
Strigils	50	3	6
Astragali.....	41	3	7.3
Adornments	68	6	8.8

Coins were found in only four cremation graves, including the chamber tomb, three of which were secondary cremations. But, since a small coin is hard to find among ashes and burnt pebbles, many of them may have been missed in the excavations. They were more difficult to find because most of the graves were so thoroughly burnt and disarranged that the place of the head, where coins were generally located, could not be determined. We may assume, therefore, that cremations had no fewer than the average (11%) for Olynthian burials.

No adequate explanation of the reason for cremation has yet been set forth. Dörpfeld's theory of scorching, that all corpses were burned at least lightly for symbolic reasons, has never gained general credence.¹⁶ The Pythagoreans were almost the only Greeks who had any dogma concerning the type of interment, and they forbade cremation.¹⁷ Professor Nock has shown that the change from cremation to inhumation in the Roman Empire was not due

¹⁶ Dörpfeld, "Verbrennung und Bestattung der Toten im Alten Griechenland," *Mélanges Nicole*, Geneva, 1905, pp. 95-104.

¹⁷ Iamblichus, *De Vita Pythagorica Liber*, 154.

to religion or to ideas of the afterlife.¹⁸ The fluctuation between cremation and inhumation or the prevalence of one or the other at certain sites in different ages and the difference in the extent of the practice of cremation among neighboring communities in the same age also preclude doctrinal differences between the two modes of interment.

Thiersch thought that cremation was rather for the higher strata of society,¹⁹ but Breccia thinks it was a matter of individual choice according to the region, opportunity or economic circumstances.²⁰ They may both be right. Cremation may have been the more honorable mode of burial in Greece²¹ as it is in India today,²² but, as in India, the expense and inconvenience attached to cremation may often have caused the decision for inhumation. Nock thinks that the rising price of fuel caused cremation to give way to inhumation in the Roman Empire.²³ The price of wood for the pyre could hardly have been prohibitive for most Olynthians, since wood was more plentiful in that region than in most parts of Greece. If a pyre cost more than a few roof tiles, it certainly was less costly than the large monolithic sarcophagi, and in those cases, at least, expense was not the determining factor for the mode of interment.

When men died away from home, the bodies may have been cremated to facilitate transportation home, since embalming or mummifying was not practiced. Only a few cases of embalming are known from Greece of the Classical Age. King Agesipolis of Sparta, who died at Aphytis, was shipped home embalmed in honey,²⁴ and King Agesilaus of Sparta, who died in Libya, was

¹⁸ Nock, "Cremation and Burial in the Roman Empire," *Harvard Theological Review*, XXV, 1932, pp. 331-341.

¹⁹ *Jahrbuch d. kaiserlich deutschen Archäologischen Instituts*, XXV, 1910, p. 57. Cf. also Gabrieli, *Mon. Ant.*, XXII, 1913, p. 575 and Orsi, *Not. Scav.*, V, 1897, p. 498.

²⁰ Breccia, *La Necropoli di Sciatbi*, I, p. xxiv.

²¹ Macrobius, *Sat.*, VII, 7, 5.

²² A. D. Rowe, *Everyday Life in India*, New York, 1881, p. 214.

²³ Nock, *loc. cit.*, p. 357.

²⁴ Xenophon, *Hell.*, V, 3, 19.

sent home embalmed in wax because of a lack of honey.²⁵ Cremation, however, was also practiced to prevent violence to the body. The Greeks would rather have the body devoured by purifying fire than by dogs or worms. "But now . . . shall coiling worms devour thee when dogs have had their fill," says Homer in the person of Andromache.²⁶ And again he has Achilles say, "Behold these all in company with thee the fire devoureth; but Hector son of Priam will I nowise give to the fire to feed upon, but to dogs."²⁷ In fact, the Greeks were rather careful that the body soon be disintegrated. They often buried in "sarcophagi," coffins the very name of which means to devour the bodies, and which were supposed to have this quality.²⁸

The choice of cremation or inhumation, it would seem, was a matter for the individual and his family to decide. Athenaeus tells of a miser who preferred to be simply buried,²⁹ and Lucian has a dead man say to his father as he was lying on the bier, "My eyes will very soon be corrupted or even burnt, if you have decided to burn me."³⁰ Cremation may have carried a certain honor or sanctity with it, as the grave furniture at Olynthus indicates, but it also had its drawbacks. It was more expensive than burial in its simpler forms. And the smoke and odor from the burning pyre and body in the open air must have been obnoxious enough to drive out the custom in the course of time.

The rites connected with cremation were apparently the same as for inhumation. The corpse was washed and dressed, generally by the nearest female relatives,³¹ but sometimes by men when occa-

²⁵ Plutarch, *Agessilaus*, 40, 3. For late Greek and Roman instances of preserving the bodies, cf. Mau in *R. E.*, V, cols. 2113 f.; W. Helbig, *Das Homerische Epos aus den Denkmälern Erläutert*, Leipzig, 1887, pp. 53 ff.; Marucchi, *Not. Scav.*, XX, 1923, p. 14; Hülsen, *Mitteilungen des Instituts für Österreichische Geschichtsforschung*, IV, pp. 433 ff.; Hoffmann, *Arch. Zeit.*, XXXVI, 1878, pp. 25 ff.; D. Simonsen, *Sculptures et Inscriptions de Palmyre*, p. 63. For Eastern kings embalmed in wax cf. Gray in *Encyc. of Religion and Ethics*, IV, p. 505.

²⁶ *Il.*, XXII, 508 f.

²⁷ *Il.*, XXIII, 182 f.

²⁸ Pollux, X, 150; Pliny, II, 96 and XXXVI, 17.

²⁹ Athenaeus, IV, 49.

³⁰ *De Luctu*, 18.

³¹ *Il.*, XXIV, 707-805; Isaeus, *De Philoctemonis Hereditate*, 41; Euripides, *Phoen.*, 1660.

sion demanded, as at the funeral of Patroclus.³² It was then placed on a bed which served as a bier. The bier was to all appearances on vase scenes an ordinary bed. This is corroborated by the fact that it was often set on blocks to elevate it more nearly to eye level.³³ The corpse was dressed in garments³⁴ or covered with a robe.³⁵ After a day or two of lying in state (*πρόθεσις*) the deceased

³² *Il.*, XVIII, 343 ff.

³³ Cf. A. Fairbanks, *Athenian White Lekythoi*, *Univ. of Michigan Studies, Humanistic Series*, VII, New York, 1914, pp. 11, 164, 165, 205, 258. For illustrations of the *prothesis* on vases cf. W. Zschietzschmann in *Ath. Mitt.*, LIII, 1928, pp. 17-47, Pls. VIII-XVIII; LIV, 1929, Pl. 2; LIX, 1934, pp. 1-18, Pls. I-III; Pottier, *Étude sur les lécythes blancs attiques*, pp. 11-22, Pl. 1; *Ant. Denk.*, II, Pl. 11 (plaque by Execias); Pfuhl, *Malerei und Zeichnung der Griechen*, fig. 278; a black-figured terracotta plaque in the Walters Art Gallery, Baltimore.

³⁴ Artemidorus, *Oneirocritica*, II, 3; Plato, *Laws*, XII, 947; Pausanias, IV, 13, 1; Koehler on a Cean inscription which directs that the dead be wrapped in three white cloths, *Ath. Mitt.*, I, 1876, p. 140, and Roehl on p. 255; *Il.*, XXII, 508-514. The Pythagoreans must wear linen, not wool, cf. Herodotus, II, 81; A. D. Nock, *Studies Presented to F. L. Griffith*, London, 1932, p. 248; Juvenal, III, 171 f.; Lucian, *De Luctu*, 11. Remains of clothing found in graves: Stephani, *Compte Rendu de la Commission Impériale*, 1859, pp. 15, 30; 1860, pp. 4 f.; 1865, pp. 11, 16; 1878/9, Pl. VI, 5, 6, pp. 142 f.; Watzinger, *Griechische Holzsarkophag*, pp. 3, 6, 13, 20. Cf. also the various vase paintings. On a relief, a fragment of a sarcophagus, Heracles lies on the pyre naked. Cf. *Annali*, LI, 1879, pp. 58-62 and Pl. E, 2. Soldiers were often buried in their armor. Cf. *Il.*, VI, 418; *Od.*, XI, 74; XII, 13; Sophocles, *Ajax*, 577.

³⁵ Plutarch, *Lycurgus*, 27; cf. the words *ἐνράφιον*: Simonides of Ceos, 1, l. 4; Isocrates, VI, 125 A; Polybius, XV, 10, 3; *Anth. Pal.*, IX, 294; *φᾶρος* (*φάρος*): *Od.*, II, 97; XIX, 142; XXIV, 132; *πέπλος* (used to cover almost anything), over the face of the dead: Euripides, *Tro.*, 378, 627; *Hec.*, 432; *Ion*, 1421; for the *πέπλος* over funeral urn, cf. *Il.*, XXIV, 796. For an ash urn actually found wrapped cf. Weege, *Etruscische Malerei*, Halle, 1921, p. 26. One was found at Athens wrapped in reed or straw. Cf. *Arch. Anz.*, LI, 1936, pp. 188 f. At Eretria the cremated bones were found wrapped in cloth. Cf. *Ath. Mitt.*, XXVI, 1901, p. 354, Throne A. Gropius found similar graves in Attica, cf. L. Ross, *Archäologische Aufsätze*, Leipzig, 1885, I, p. 24. "The fringed borders of the Hagia Triada sarcophagus suggest that embroidered cloths were at times spread over the coffins," says Arthur Evans, *Shaft Graves and Bee-Hive Tombs of Mycenae*, London, 1929, p. 16. Cf. also Watzinger, *op. cit.*, p. 3, fig. 4. At Olynthus an inhumation burial in a stone sarcophagus, grave 595, contained a basket, under which cloth was found. It was so fragile, however, that the basket and cloth soon vanished when the air was admitted. No color was detected, but the cloth was generally white. Cf. Artemidorus, *Oneirocritica*, II, 3; also Aeschines, *In Ctes.*, 77; *Il.*, XVIII, 353; Koehler, *loc. cit.*; Pausanias, IV, 13, 3; Plato, *Laws*, XII, 947. Apparently sometimes other colors

was carried to the grave³⁶ or hauled³⁷ to the cemetery on a bed or bier or in a coffin; and there the corpse was buried or cremated. Frequently the bier was placed in the grave, and considerable evidence of biers has been found in the excavations of various sites.³⁸ When the corpse was cremated, the bier or coffin was set on the pyre,³⁹ though, of course, the fire destroyed the evidence.⁴⁰ In most cases the bier was not placed in the grave or burnt on the pyre. For cremation this is assumed from analogy to inhumations where the evidence is quite certain. Nearly all the graves at Olynthus, for instance, could not have had the biers buried in them. In the case of tile coverings, especially gabled tile coverings, this is beyond dispute. If the corpse was carried to the cemetery on a bier, the bier was returned after the corpse was removed. This is another indication that the bier was an ordinary bed which was again returned to the house and used to sleep on.

With a few exceptions the cremations at Olynthus were primary cremations. The pyre was built in a trench and when it had burnt

were used, as in Plutarch, *Lycurgus*, 27, where the Spartans "simply covered the body with a scarlet robe," and frequently on vase scenes. Cf. Fairbanks, *op. cit.*, pp. 11, 38 (nos. 11 and 12), 164, 258. Those on pages 81, 139, 165, and 205 were apparently white.

³⁶ Cf. *Ath. Mitt.*, LIX, 1934, pp. 1-18; *C.V.A., France* 10, *Bibliothèque Nationale*, 2, Pls. 71 and 72; Euripides, *Alc.*, 607, slaves carried Alcestis; Plato, *Laws*, XII, 947, corpse carried on a κλίνη; Pollux, VII, 195, professional pall bearers; Plutarch, *Timoleon*, 39, youths chosen by the people; Lucian, *Demonax*, 67, Demonax carried by his brother Philosophus.

³⁷ *A.J.A.*, XLIV, 1940, p. 243, Lycians, Celts and Illyrians; Minns, *Scythians and Greeks*, p. 153, the Scythians buried their hearse. For vases cf. *Mon. Inst.*, IX, Pl. 39, eighth century Dipylon vase; Rayet, *Monuments de l'Art Antique*, Paris, 1884, Pl. 75, a terracotta cut-out plaque; *C.V.A., France* 10, *Bib. Nat.* 2, Pls. 71 and 73, black-figured vase.

³⁸ Blegen, *Prosymna*, I, p. 76; II, plan II; Orsi, *Not. Scav.*, I, 1893, p. 448; *B.S.A.*, XIV, 1907, pp. 242 ff.; *Arch. Anz.*, L, 1935, pp. 271 and 287; Watzinger, *Griechische Holzsarkophage*, p. 66; Filow, *Die Grabhügelnekropole bei Duvanli*, Sofia, 1934, pp. 121 ff.; *Compte Rendu de la Commission Impériale*, 1863, p. 228; 1872, pp. 254 f., 320.

³⁹ Plutarch, *Timoleon*, 39, 3.

⁴⁰ But cf. *Arch. Anz.*, L, 1935, pp. 270 f. for a body burnt in a wood cist in the Cerameicus and *Ath. Mitt.*, XVIII, 1893, pp. 165 and 184 for fragments of grape vines believed to have been on a bier.

down the trench was filled with earth without moving the bones. The trench was dug as for an inhumation, though slightly larger. Its average width must have been over a meter, and its length about two meters, for the average of the ash layers detected in the excavations was 0.90 m. by 1.29 m., and only in a very few cases was a side of the trench reached by the ash layer. The depth was the same as for inhumations, averaging about a meter at the time of the burial.

In the trench was probably placed first a layer of straw or hay to kindle the wood, though, of course, no evidence of this remained; its presence is axiomatic since wood requires something easily ignitable into a strong flame to start it burning evenly all around. There is, however, some external evidence for it. On the bottom of the pyre on the Croesus vase⁴¹ is depicted a cross-hatched member the size of the lowest log, which rests on it and also has slanting marks on the lower part. This is no doubt intended for the straw layer with ends of straw protruding from under the log. Straw or hay is also used in India to start the burning of the pyres, which are placed in very shallow trenches or on the surface, since the bones are later removed.⁴² On this bed of straw the wood was stacked in alternate layers (Fig. 26, p. 144). The size of the pyre varied considerably. It was much wider than the body of the deceased but seems to have been rather short, seldom longer than the body. Possibly the legs were at times bent back at the knees, as we occasionally find them in India,⁴³ though in every case where the skeleton remained and was not too badly disarranged the legs were extended. The height also varied, no doubt, according to the kind and quantity of the wood and the intensity of heat desired. The top of the pyre was probably a little above ground level.

The few pieces of charred wood which were found at Olynthus have not been analyzed by experts on wood, but they seem to have been of deciduous trees. Probably almost any kind of wood was

⁴¹ *C.V.A., Louvre*, 6, Pl. 35; Furtwängler-Reichhold, *Gr. Vas.*, II, pp. 277 ff., Pl. 113. For the pyre of Alcmena on a crater by Python cf. Trendall, *Paestan Pottery*, Pl. XV.

⁴² Cf. T. A. Joyce and N. W. Thomas, *Women of All Nations*, London, 1911, p. 604, illustration.

⁴³ Cf. *ibid.*

used, but there seems to have been a preference among the ancients. Heracles asks to be placed on a pyre of oak,⁴⁴ and Tacitus says that the Germans used certain kinds of wood for the cremation of noted men.⁴⁵ In India sandal wood is the choice which few can afford. Apparently the preference depended not so much on the burning quality of the wood as on its rarity.

When the pyre was placed in the trench, the problem of draft for the fire had to be dealt with. When the pyre was built on the surface of the ground for secondary cremations, ventilation did not create a serious problem, for the pyre received air freely from all sides. Even then, it would seem, a windy day was necessary, or at any rate preferred, to get sufficient draft for a very hot flame, for the pyre of Patroclus would not burn until Achilles sent for the winds to fan it.⁴⁶ But when the pyre was built in the grave itself (probably because of the difficulty or unpleasantness of collecting the bones afterwards), the free access of air was shut off and a serious problem arose, especially if the grave was deep and cut into hard rock. At Olynthus the problem was not so serious, for the Olynthians did not bury deep and the ground was so soft that the trench could easily be made amply large to permit sufficient air to reach the pyre. The upward surge of air at the center, caused by the fire, drew the cooler air down along the walls of the grave. But when the grave was cut deep into rock or hard earth, aids for the admission of air were sought.

At Athens, where the graves were over 3.00 m. deep, 1.90 m. long, and 0.80 to 1.00 m. wide, a trench about 0.10 m. wide and more than 0.20 m. deep was dug lengthwise through the center of the grave floor extending up the ends to the surface of the ground.⁴⁷ Similar cuttings were found at Vurva and at Velanideza in Attica.⁴⁸ By this means the cooler air could find its way to the bottom of the pyre, shielded from the fire by the walls and floor of the grave.

⁴⁴ Sophocles, *Trach.*, 1195.

⁴⁵ *Germania*, 27.

⁴⁶ *Il.*, XXIII, 192-216. For pyre of Patroclus cf. Furtwängler-Reichhold, *Gr. Vas.*, Pl. 89.

⁴⁷ *Ath. Mitt.*, XVIII, 1893, pp. 157 f.

⁴⁸ *Ath. Mitt.*, XV, 1890, pp. 319 ff.

At Rhodes many of the cremation trenches were found to have oblong pits in the corners. Those at Vroulia were 0.30 to 0.45 m. long, 0.20 to 0.35 m. wide and 0.12 to 0.20 m. deep.⁴⁹ Many of those at other sites were larger and deeper.⁵⁰ Not all graves had these pits. At Ialysus 54 graves had no pits, 27 had four pits, one in each corner, 3 had only three pits each, and 2 had only one. Their use as ventilating devices is probable but not so certain as those in Attica. Jacopi thinks that they served that purpose.⁵¹ Kinch, who first noticed them, suggests that they may have served in consecrating the grave or in receiving offerings to the chthonian deities, because quite a number of the vases were found in them.⁵² Orsi reports rectangular pits in the four corners of some inhumation graves at Syracuse,⁵³ but these pits, which were somewhat smaller, were probably to receive the legs of wooden biers or coffins. Whether or not they were intended as aids to the draft, they did help the ventilation of the fire. The corners of the grave being the coolest, both because they were the farthest from the pyre and because the air was partly shielded by the right angle of the walls, there is where the most air would descend. The pits extended the corners down lower and carried the air under the pyre. The complete burning of the pyre was further facilitated by these cuttings in that much of the first ashes to form dropped into them permitting the bottom wood to burn longer before being smothered by the ashes of the wood above. When the draft was insufficient, the fire necessarily burnt slower, and the risk of the wood or the corpse burning less completely was greater.

The intensity of the fire varied greatly in the various graves. At Olynthus most skeletons were quite thoroughly burnt. In only 30 cremations were any skeletal remains found and in only 6 could the orientation be determined. In a few of these the bones were not greatly disarranged (graves 59, 152, 450, 547). Grave 59 must have had a light fire, for the skeleton of a youth lay on his right

⁴⁹ Kinch, *Fouilles de Vroulia*, p. 55.

⁵⁰ Cf. the publications in the various numbers of *Clara Rhodos*.

⁵¹ *Clara Rhodos*, III, 1929, p. 8.

⁵² Kinch, *loc. cit.*

⁵³ *Not. Scav.*, I, 1893, p. 454, grave XVII; III, 1895, p. 142, grave CCLXVIII.

side with his head at the west, facing south, and his legs partly flexed. Apparently the fire did not burn well, and the body slid off before the wood was completely consumed. In grave 152 a gabled roof tile covering was placed over the remains, perhaps because it was so slightly burnt. In grave 450 the fire could not have been intense, for the skeleton lay supine not much disarranged. Grave 547 did not have a hot fire. While most of the bones were quite scattered, those of the feet lay undisturbed in their places, only slightly charred, and the pottery throughout the grave was only slightly burnt.

Large coarse amphorae were found in 15 graves which might be considered secondary cremations. They were all very much broken and in some cases the pieces were quite well scattered throughout the ashes. All were burnt. Many were found to contain ashes and a few even bones (graves 182, 233, 303, 316). In no case were all the bones in the amphora. It is not certain whether an attempt had been made to pick up the bones from the ashes, perhaps with a shovel, and place them in the vessel or whether the bones and ashes found their way in through the breaks in the amphorae—that is, whether the vessels were intended to be *ostothekai* or whether they served some ritualistic custom. A secondary cremation, grave 143, favors the former view. In this grave an amphora was found standing erect in the usual bed of ashes in a trench in which, however, no bones were found. It was burnt black, especially at the bottom, and it had been broken off at the shoulder with the top again replaced. In the amphora stood a red-figured pelice filled with bones. What happened here was that the body had been cremated in the trench and the bones picked up and placed in the pelice, the pelice placed in the amphora, the top of which had been removed to admit it, the top replaced and the amphora set in the bed of coal and ashes while they were still hot. An alabastrum was placed on the shoulder of the amphora for the deceased and the trench was closed with earth. The procedure had been carried farther in this grave than in the others. A grave at Ialysus, Rhodes, was also found to contain some of the bones in an amphora and some outside of the amphora.⁵⁴

⁵⁴ *Clara Rhodos*, III, 1929, p. 72, grave 43.

These amphorae were either intended for *ostothekai* or they had the same function as the amphorae, *loutrophori*, and other large vases frequently found in or near inhumations, which are believed to have contained water for the deceased's bath.⁵⁵ At Olynthus only one such vessel was found. It was an amphora standing in a corner of the stone sarcophagus of grave 595. At several other sites they were somewhat more numerous, although they were nowhere found in a high percentage of the graves, except in a few cemeteries on Rhodes where they were found at the heads of most of the stone sarcophagi.⁵⁶ They were rarely found with cheap forms of graves or with cremations. It is hardly likely, then, that bath water should have been provided for so many cremations at Olynthus and for but one inhumation.

Two amphorae were found to contain small vases. That in grave 225 contained a small broken cover and two scyphi and that in grave 260 one scyphus. The vessels at Rhodes were often covered by a *phiale* or other cup-like vases,⁵⁷ which, besides serving as covers, could conceivably have been intended to aid the departed in his bath. But if the vases at Olynthus had been placed on the mouths of the amphorae, they would have fallen off and not into the vessels. Furthermore, vases and other objects were frequently put into urns of secondary cremations. A theory that the scyphi were placed in the amphora which was closed by the cover is forestalled by the fact that the cover, which measured only 0.09 m. in diameter, was smaller than the scyphi. The same argument holds against a theory that the amphorae were used to contain water or wine to quench the fire,⁵⁸ or that they contained water for purification.⁵⁹ Furthermore, the evidence indicates that the fires were not quenched, at least not before the amphorae had been set in them.

⁵⁵ Cf. Wolters, *Ath. Mitt.*, XVI, 1891, pp. 371 ff.; Brückner and Pernice, *Ath. Mitt.*, XVIII, 1893, pp. 143 ff. Cf. also below, pp. 184-185.

⁵⁶ Cf. *Clara Rhodos*, III, 1929, p. 13 and the graves, and VIII, 1936, p. 44.

⁵⁷ *Clara Rhodos*, III, 1929, p. 13.

⁵⁸ Cf. Vergil, *Aeneid*, VI, 227: *reliquias vino et bibulam lavere favillam*; and the vase scenes showing the quenching by *hydriae*, i.e. Gerhard, *Antike Bildwerke*, Pl. 31; *J.H.S.*, XI, 1890, Pl. VI; *Bull. Napol., nouv. sér.*, III, Pl. 14.

⁵⁹ Cf. Margherita Guarducci, *Studi e Materiali*, XIV, 1938, pp. 168-172.

While there is no assurance that all these amphorae were used for the same purpose, the graves discussed above tend to indicate that attempts were made to place the bones in urns which were then buried *in situ*. Another grave may further substantiate this; grave 569 in the East Cemetery had a small terracotta sarcophagus standing in a bed of ashes. The sarcophagus was probably an urn, since its inner depth was only 0.10 m., too shallow to contain even the corpse of an infant.

Two more secondary cremations were found. Grave 246 was a hydria full of bones standing in a hole dug in the ground and grave 308 was another pelice in a coarse amphora. These graves are similar to grave 143 except that the bodies had not been cremated in the trenches which contained the urns. Grave 598, the chamber tomb, which may also have been a cremation, has been discussed in Part I of this volume.

CHAPTER III

INHUMATIONS

More than 91 per cent. of the Olynthian interments were inhumations in a variety of forms. Over half of the adult inhumations were protected by terracotta roof tiles, the remainder being buried in stone or wood coffins or without any rigid protection. The following table sums up the graves:

Type of Grave	No. of graves	No. of burials	Percent- age of burials	Percent- age of graves in which furniture was found	Percent- age of graves in which skeletons were found
Cremations	53	53	8.23	88.68	56.6
Stone sarcophagi	4	5	0.78	75	100
Wooden coffins	33	33	5.12	84.85	94
Tile cists	4	4	0.62	75	100
Gabled tile cover	175	176	27.33	64.7	83.5
Flat tile cover A	13	13	2.01	77	84.6
Flat tile cover B	27	27	4.19	18.5	74
Unprotected burial	106	147	22.82	64.15	96
<i>Enchytrismoï</i>	164	165	25.62	29	22
Others	21	21	3.26	38	57

The stone sarcophagi were of two types, two of each type, monolithic (graves 577 and 595) and composite (graves 267 and 597). They cannot be dated very closely. The style and workmanship of the coarse monolithic sarcophagi, found in the East Cemetery, could be fourth century or fifth or sixth. Nothing datable was found in grave 577, but grave 595 contained a coarse amphora of late fifth or early fourth century type which dates the grave to that time. The composite sarcophagi (graves 267 and 597), both graves of children, are similar to graves found at Aivasil.¹ Grave 267, in Riverside Cemetery, contained only a pair of bronze earrings limited in date by the sixth and the fourth centuries. But its *terminus ante quem* is late fifth century, for

¹ *B.S.A.*, XXIII, 1918-1919, pp. 18-24.

from its position it was earlier than graves 266 and 268, which contained objects of the late fifth and early fourth centuries.

Wooden coffins were more frequently used than stone coffins; the reason is obvious: it was the lower cost. The graves at Olynthus in every way display economy. They were shallow, dug where digging was easy, constructed of cheap materials. They contained very few objects which were not cheap and they had no monuments. The two monolithic sarcophagi, though they are plain and made of rough stone, are rather exceptional luxuries. This indicates that the wooden coffins were rather plain, for, if carefully made and decorated, they could be quite expensive.²

Little trace of wood was preserved from the coffins, but their existence is inferred in 33 graves from nails found around the skeletons. The nails found in each case were few; only about half a dozen to a dozen. They were much corroded and many nails have vanished entirely. It is not probable that the unprotected burials, of which a great number was found, had been in wooden coffins, unless possibly, in a few cases, the nails were not recognized in the excavations, for that would imply a coffin constructed by dowel pins or dovetailing; and such a coffin would by no means be cheap. The nails were of iron with a rather short, heavy shank, about three to five millimeters in diameter and probably about ten to fifteen centimeters long originally, with a large, flat head. They were found around the skeleton in a position to indicate that they had been driven into the bottom edge of the sides. Generally some or all had fallen over, and in graves 335, 376, 397, and 505 some nails were found on a part of the skeleton, where they had rested after the corpse had fallen through the bottom of the coffin, when it was not resting flatly on the bottom of the trench, and the sides had caved in and disintegrated on top; but in two graves, 73 and 266, the nails were still resting with points up in straight lines beside the skeletons where the walls of the coffins had been. Grave 73 was rectangular but some graves were wider at the head end. Grave 394 had the usual nails around the skeleton and other nails, longer and thinner, a few centimeters over the head, which pre-

² Cf. C. Watzinger, *Griechische Holzsarkophage aus der Zeit Alexanders des Grossen*.

sumably came from the top part of the coffin. No metal or terracotta ornaments or fixtures which might have belonged to the coffins have been found.

The dates of the wooden coffin graves range from the end of the sixth or the beginning of the fifth century to the middle of the fourth.

Much more usual than the wooden coffins or any other type of burial were the simple, improvised coffins made of terracotta roof tiles. Four of these (graves 343, 504, 553, 558), somewhat more elaborate than the rest, were cists made by placing tiles on edge around the corpse to form the sides and covering them with tiles laid flat. The tiles were about a meter long and half a meter wide, the size varying somewhat. They were slightly curved about the long axis and uniform in thickness, about two centimeters on the average, without holes or protrusions. In grave 504 the tiles were braced against each other in a manner similar to the stones in composite stone sarcophagi, but in the other three graves they were leaned against the sides of the trenches. In grave 553 a wall of small stones was substituted for tile around the lower half of the grave, and there was no tile at the upper end. A tile also formed one side of the grave of a child on the South Hill (grave 596).

One hundred and seventy-five graves, one containing the skeletons of two small children (grave 592), were gabled tile coverings, made by bringing together the upper edge of the tiles, which were placed beside the corpse, to form a gable (cf. Pl. LXI, Figs. 5, 6, 7). This form of burial was widespread and continued in use from at least as early as the sixth century B. C. to Roman times, varying only with the shape of tiles used in each locality.³ When the corpse was that of an adult, longer than the tile, another set was generally added, slightly overlapping the first; rarely the tiles butted end to end. The first set of tiles was sometimes placed over the feet with the second set over the head, and sometimes the order was reversed. In several graves extra tiles were placed against one or

³ Cf. e. g., *Mon. Ant.*, XVII, 1906, p. 69, fig. 42, Gela; Dörpfeld, *Alt-Ithaka*, pp. 252 ff., Ithaca (Roman); *A.J.A.*, XLIII, 1939, p. 514, Aosta (Roman). Cf. for Phalerum Δελτίον, II, 1916, pp. 13 ff.; Keramopoulos, 'Ο Ἀποτυπωτισμός, Fig. 10, etc.; *Hesperia*, Suppl. II, App. 1, pp. 231 ff.; *A.J.A.*, XLVI, 1942, pp. 23 ff.

both sides, making the walls double in thickness. Three graves had the gabled tiles only over the upper part of adult skeletons; one of these had the legs covered with a tile laid flat (grave 535), another had the legs covered with a flat stone (grave 304), and the third had the legs uncovered (grave 42). Occasionally cover tiles (the narrow, highly arched tiles used to cover the vertical joints of the tiles on a roof) were placed on the ridge of the gable. And sometimes, to make the coffin more complete, ends were added by breaking a roof tile in two and placing half against each end. Frequently part of a tile was found only at one end, and occasionally stones or sherds of coarse pottery were substituted at one or both ends. While most of these coffins had no bottom, some had a tile laid, with the concave side up, under the skeleton; and almost an equal number had the tile, with the concave side down, laid over the skeleton, within the gable.

Of the 175 gabled tile coverings (176 burials), 97 were graves of adults, 57 of children, and 22 of unknown age. The construction of the graves is summarized in the following table:

72	graves one tile long
103	graves two tiles long
55	graves with ends closed
49	with tiles at both ends
5	with stones at one or both ends
1	with broken amphora sherds at both ends
43	with one end closed, generally the head end of the grave
34	with part of a tile at one end
9	with stones at one end
2	with double thickness of tiles on both sides
2	with double thickness of tiles on the south side
1	with double thickness of tile on the north side
7	with cover tiles on the ridges
9	with tiles over the skeletons
2	others with parts of amphorae over heads
1	other with parts of amphorae over head and feet
10	with tiles under the skeletons
4	with tiles over and under the skeletons
3	one tile long with feet protruding
1	with feet covered with tile
1	with stone slab
1	uncovered

Another form of simplified coffin was made by using the sides of the trenches as sides of the coffin and merely adding a cover of roof tiles (Pl. LXI, Figs. 2, 3, 4). The lower part of the trench was made narrower than the upper part, leaving ledges on the sides, slightly above the corpse, on which the tiles rested. These ledges were not very often noticed in the excavations at Olynthus because the trench walls could not be differentiated from the fill in the soft, gravel earth, but their existence was evident from the way the tiles had caved in. Parallels are found at other sites where the trenches were more clearly outlined.⁴

Tiles were also laid flat over another type of grave. In this the trench was dug with straight walls as in the graves in which wooden coffins or gabled tile covers were used, and the tiles were laid directly on the corpse. In two graves, graves 530 and 548, small stones were laid on the chest to prevent the tiles pressing on the face.

These two types differed considerably, especially in the amount and kind of furniture found in them. Thirteen graves of the first type, type A (cf. Pl. LXI, Fig. 3), were found and twenty-seven of the latter, type B (Pl. LXI, Fig. 4). Ten graves of type A contained furniture (77%) and only five of type B (18%). Most graves of type A were adult burials (8 adult, 4 children, 1 unknown) while those of type B were mostly of children (11 adults, 12 children, 4 unknown). Ten infant burials under Laconian cover tiles might also be included in type B.

Graves 136, 516, and 518 are variants of type A in which rather heavy stone slabs were used instead of roof tiles.⁵ In grave 136 the ledges were apparently giving way, so that they were reinforced by small stones. Grave 249 was found with large flat stones standing on edge at either side of the upper part of the body. The

⁴ Cf. *Δελτίον*, III, 1917, pp. 225 and 234 f., graves 10 and 18, Thebes; *Mon. Ant.*, XXIII, 1914, pp. 906 ff., graves 51, 78, 87, 92, 100, 112, Caulonia. Cf. *ibid.*, grave 28, p. 918, fig. 157, where the tiles were gabled over such a trench, and *Clara Rhodos*, VI-VII, 1932, p. 15, fig. 4, where stone slabs were gabled over the trench.

⁵ Cf. *Not. Scav.*, III, 1895, pp. 109-192, where some of the 111 trenches had ledges in the sides supporting stone covers.

stones were flat on top and evidently supported a cover which was probably wood, since no remains of it survived.

While some of the graves in which no form of rigid protection was found may have had wooden covers, there are others for which no such covers can be assumed. Among these are the multiple burials. Three were found at Olynthus, graves 248, 250, and 264, containing nine, nine, and twenty-six skeletons respectively. The three are simultaneous burials, really one large burial in three sections.⁶ The occasion and nature of the catastrophe that caused all these deaths cannot be determined precisely. All three graves were alike in every way, and contained pottery, ranging in date from the late sixth century to about 430 B. C. The catastrophe was almost certainly due to war or rioting. The dead were mostly men, but among them were some women and a child of about five years. Only two weapons of war, two iron spear heads, were found among them; but since these were the only war implements found in the cemeteries, where surely some of the interred must have been soldiers, they point strongly to war casualties. The burials were probably not the result of a plague^{7a} for they were all interred at one and the same time, and generally in a plague persons do not die at so nearly the same time that they can all be buried together. Persons dying from a plague are buried as soon as possible and not kept for several days. As the result of a plague one should expect a greater number of graves with not many burials in each,

⁶ *A.J.A.*, XXXIX, 1935, p. 226.

^{7a} The plague of 430-429 B. C. in the second year of the Peloponnesian War, which might have caused such simultaneous deaths (cf. Thuc., II, 48-53), did reach Potidaea, only seven miles distant from Olynthus (cf. Thuc., II, 58; *Olynthus*, IX, pp. 305 f.); but there is no definite evidence that the plague was in Olynthus. The lack of coffins as mentioned by Thucydides (*loc. cit.*) might suggest a plague or sudden burial, but then there should be more than forty-four burials. No evidence of death by a plague was found in the well-preserved skeletons and the burial was not such as Thucydides (II, 51-53) describes: "Appalling too was the rapidity with which men caught the infection, dying like sheep. . . . The dead lay as they had died, one upon another. . . . They buried their dead each one as best he could. Many, having no proper appliances (coffins) . . . lost all shame in the burial of the dead. When one man had raised a funeral pile, others would come and throwing on their dead first, set fire to it; or when some other corpse was already burning, before they could be stopped, would throw their own dead upon it and depart."

or if the epidemic was bad and burial was hurried, a heterogeneous mass of corpses perhaps piled one on top of the other as described by Thucydides. One should, furthermore, expect as many women and children as men. The presence of women and a child does, however, lead one to believe that the catastrophe was local. The date of the burials, which cannot be earlier than the latest objects found among them, coincides very well with the battles and skirmishes which took place in the region about 432 to 428 B. C., when Athens attempted to put down the revolt of the Chalcidians and when Sitalces of Thrace overran the land.⁷ The unique presence of two spear-heads is an argument for the idea that most of the forty-four persons died about the same time in some war.

In these graves the skeletons were laid so close together that the arms often overlapped and vases were contiguous to two skeletons. Wooden coffins are definitely excluded for this reason as well as for the fact that no nails were found. The graves were too large to have been spanned by planks to enclose all skeletons in each grave with a single covering. Analogous in this respect were the grave of the eighteen malefactors at Phalerum,⁸ where the pit was 4.80 m. wide, the polyandrion of the Thespians who fell in 424 B. C.,⁹ and the warriors who fell in the Battle of Cannae and were thrown pel-mel among rough stone cists in which others were buried.¹⁰ There was a great difference in these graves, however, in that those at Olynthus were more carefully laid out and were well supplied with funeral furniture, indicating that they had not been in ill favor with those who buried them. The grave of the Persians whom the Athenians buried after the Battle of Marathon,¹¹ which Pausanias could not find and which has not yet

⁷ Thucydides, I, 62, 63; II, 29, 57, 70; Mabel Gude, *A History of Olynthus*, Baltimore, 1933, pp. 10 ff. For thirteen skeletons of Lacedaemonians who died in war and were buried together in the Cerameicus, with an iron lance head in the ribs of one and two arrow heads in the right leg of another, cf. *A.J.A.*, XXXVI, 1932, pp. 290-293.

⁸ *Αρχ. Έφ.*, 1915, p. 134; *Δελτίον*, II, 1916, pp. 25, 49-64, figs. 54-58; *Arch. Anz.*, XXXI, 1916, p. 141; *A.J.A.*, XLVI, 1942, p. 24, n. 8. The skeletons, *σιδηρόδετοι*, had irons about their necks, wrists, and ankles, showing that they were criminals, probably executed at the crossroad nearby.

⁹ *Πρακτικά*, 1911, pp. 153 ff.

¹⁰ *Arch. Anz.*, LIII, 1938, pp. 717-721.

¹¹ Cf. Frazer, *Pausanias's Description of Greece*, II, London, 1898, pp. 433 ff.;

been found, must have had somewhat the appearance of those at Phalerum and Cannae.¹² These graves are cited because the corpses had definitely not been protected from the earth by any rigid coverings and they prove that there were unprotected burials.

The possibility of wooden coffins is ruled out in many cases by the way the skeleton has spread or bent. Wherever the skeleton was confined in a coffin or a gabled tile covering, it was held in a straight and rather narrow space, but many of the unprotected burials had the elbows projecting considerably or the legs bent quite well to one side. Skeletons in wooden coffins were sometimes spread when they had fallen through the bottom before the top had collapsed (graves 205, 335, 376, 397, 505). These graves could, however, have had wooden covers over the corpses similar to the tile covers of type A.

That grave 586 did not have a wooden coffin is indicated by a roughly rectangular row of stones surrounding the skeleton. The line of stones conformed quite well to the contours of the body and was much too uneven to have surrounded or been under the edge of a coffin.

The unprotected burials were not the graves of paupers.¹³ About two-thirds of them contained funeral furniture. They were much better supplied than the flat tile B graves. They, together with gabled tile and flat tile A graves, were the average graves of the Olynthians. One hundred and six unprotected graves were uncovered containing 147 burials, about 85 per cent. of which were adults. Many infant and small child burials have vanished. The table on page 158 shows that the skeletons of small children disappeared quite readily. Traces were found in only 22 per cent. of the *enchytrismoι*. Since skeletal remains were found in 96 per cent. of the unprotected graves, which is unusually high, it can be safely assumed that some graves of infants and small children were not

Ath. Mitt., XVIII, 1893, pp. 46-63; *Δελτίον*, 1890, pp. 123 ff., for the excavations of the Greek burials at Marathon. For the cenotaph for the 192 Greek soldiers who died at Marathon, cf. *Hesperia*, V, 1936, pp. 225-234.

¹² Pausanias, I, 32, 5.

¹³ The *fossae in terra nuda* at Gela were thought to belong to the lowest order of society, cf. *Mon. Ant.*, XVII, 1907, pp. 234-242.

found. Graves in which the skeletons had disintegrated were sometimes detected by the tiles or other coverings, but if there was no furniture in an unprotected burial, there was nothing left to indicate the existence of the grave.¹⁴ Since infants were generally rather simply buried, one would expect this to have been a common form of infant burial; but there is no way even of guessing at the number.¹⁵ The number of infant and small child burials found at Olynthus constitutes about 30 per cent. of the total number of burials. 25.62 per cent. of the graves were *enchytrismoi* of infants and small children, and a low percentage of other forms of burials comprised those of infants and small children. If this is a large proportion of the burials, it only corroborates other sources that indicate high infant mortality for ancient Greece.¹⁶ A comparison with statistics of our time is instructive. In Maryland the infant mortality for 1928 was 7.96 per cent. and in 1938 it was 5.57 per cent.

Unprotected does not mean that the earth was thrown into the face of the deceased; it means that no form of protection was found. The corpse was undoubtedly covered with a shroud the same as for any other form of burial, and more than likely another shroud or cloth cover was thrown over it to protect the corpse from the earth. We cannot regard this form of burial as an unusually cheap burial since the furniture does not in the least indicate poverty. The flat tile coverings of type B were apparently much cheaper.

Most of the burials of infants and very young children found

¹⁴ In graves 567, 582, 583 only furniture was found.

¹⁵ It was the kind of burial that largely replaced *enchytrismoi* in the fifth and fourth centuries at Syracuse, Gela, Corinth, and Athens. Cf. pp. 169-70 below.

¹⁶ Cf. Aristotle, *Hist. An.*, VII, 588 a 8 on infant mortality. Miss Richardson, *Old Age among the ancient Greeks*, pp. 231-232, gets a much lower per cent., 11.52% (233 examples from inscriptions) for children up to five but 14.54 for children sixteen to twenty (294 examples from inscriptions). In any case the ancient mortality among children and young adults was much higher than in modern times. Those dying between sixteen and twenty form the largest number, those twenty-one to twenty-five the next largest group and infants under one and between one and five come next. But perhaps inscriptional statistics are not as reliable as those from excavated cemeteries, since deaths of small children were not always recorded.

at Olynthus were in earthenware vessels, usually coarse amphorae. As a descriptive term to cover all forms of vessels we have taken the word used in the publications of the Rhodian graves in *Clara Rhodos*,¹⁷ ἐγχυτρισμός, which means simply "in an earthenware vessel." The word ἐγχυτρισμός has not been found in use by ancient writers, Zimmern notwithstanding,¹⁸ but for that reason our use of it is none the less valid.¹⁹

One hundred and sixty-five burials (164 graves) were *enchytrismoι*. This is about 25.6 per cent. of the burials at Olynthus. About 149 (90 per cent.) of these were amphorae, 2 were hydriae, 3 craters, 4 barrel-like vessels, 2 pithoi, and in 4 cases the type of burial could not be determined. The vessels were generally lying on their sides at the usual depth of about a meter, though 12 were set with the mouth up and one (grave 81) was only the bottom part of the vessel set upside down as a cover for the burial. Though the vessels were found quite broken, in many of them the evidence was clear that they had been broken around the shoulder for the insertion of the infant. The amphora in grave 124 had not been broken around the shoulder, but instead a hole was broken in one side, which was placed upward in the grave. The *enchytrismoι* at Caulonia generally had holes in their upward side covered with exfoliations of local stone;²⁰ and in some of the *enchytrismoι* at Rhodes the infant was similarly inserted through the side.²¹ One grave,²² with a neck measuring 0.35 m. inside, was not broken, the aperture being large enough to admit the infant. After the vessel had been broken, the bottom part was placed in the trench, the corpse laid into it, with the head in either direction, and the shoulder replaced and propped into position with stones or earth. Occasionally the mouth of the vessel was stopped with

¹⁷ *Clara Rhodos*, III, 1929, p. 8; IV, 1931, p. 8; VIII, 1936, p. 11.

¹⁸ A. E. Zimmern, *The Greek Commonwealth*, Oxford, 1915, p. 329, note 1. Cf., however, below notes 45 and 46, p. 171.

¹⁹ For related words in connection with the exposing of infants cf. below pp. 171-172.

²⁰ *Mon. Ant.*, XXIII, 1914, pp. 906-941.

²¹ I. e., graves 211 and 218 at Cheeraci. Cf. *Clara Rhodos*, IV, 1931, p. 366, fig. 412 and pp. 367 and 369. fig. 415.

a stone (graves 10, 234, 261, 262, 271, 284, 433, 537), a piece of roof tile (grave 532) or a bowl (grave 208). The break at the shoulder was covered in grave 575 with a roof tile, in grave 133 with the bottom of another amphora, in grave 399 with the shoulder of another amphora, and in grave 247 with sherds from the walls of a coarse vessel. In this case it was done to lengthen the coffin, for the corpse was too large for the amphora. In grave 387 only part of the body of the amphora was utilized as the walls of the coffin and covered with a terracotta basin. In grave 293 the neck had been inverted when it was replaced. In a few graves only the bottom part was found. In some of them, as in grave 469, which was shallow and standing almost erect, the top was probably removed in cultivating the land, but in others, as in graves 132 and 356, apparently the shoulders had not been buried. In grave 48 the opening was covered with a stone slab and in grave 578 with a piece of roof tile. Apparently in these cases the shoulders of the amphorae had been shattered in the attempt to sever them from the body. In grave 432 two large craters were placed mouth to mouth. It made a coffin large enough for a child of several years (*ca.* 0.75 m.), though no trace of a skeleton was found in it.²³

While the usual method of burying infants was to place them in amphorae or other large, coarse vessels, roof cover tiles were frequently used. Ten such graves were found at Olynthus (graves 22, 94, 146, 177, 189, 217, 238, 290, 435, 457). Occasionally a whole tile was used, but more often a tile was broken into two equal lengths and half placed in the trench with the concave side up into which the infant was laid and covered with the other half placed concave side down. This made a coffin somewhat similar to the sections of water pipe found at Athens,²⁴ where, however, the ends were generally closed with roof tiles, as in our grave 457.

Burying in earthen vessels was an old institution in the north Mediterranean area. Heurtley found intramural burials of Early

²³ Watzinger, *Griechische Holsarkophage*, p. 1, cites three cases of two pithoi placed together at Abusir. Cf. also Breccia, *La Necropoli di Sciatbi*, I, p. xxii, figs. 11 and 12, two craters, vertical, containing a hydria, and p. xxiii, fig. 15, a crater and a cylindrical vessel as a child burial.

²⁴ *Ath. Mitt.*, XVIII, 1893, p. 177.

Helladic date at Pelikáta on the island of Ithaca,²⁵ and Blegen at Korakou.²⁶ Pithoi were found in niches in a pre-Mycenaean house in Aegina.²⁷ Store-jars were rather a common form of burial for adults and children in the Middle Minoan III period at Knossos,²⁸ where Evans says they go back to late Early Minoan times,²⁹ and at Mochlos.³⁰ Bulle describes a pre-historic infant burial at Aphiona, Corfu, where the infant was laid on a sherd and placed in a pithos.³¹ Geometric *enchytrismoi* were found at Tiryns³² and at Phylakopi in Melos (children).³³ The Etruscans also buried in vessels, setting the *enchytrismoi* in holes and covering them with lids of tufa, terracotta, or bronze.³⁴ Around the inhumations of adults in the ancient cemetery of Samos, Boehlau found *enchytrismoi*, one of which had the mouth covered with a vase and several with stones, which, however, he thought were not infant burials since he found no bones in them.³⁵ But since they were hardly close enough to the larger graves to be definitely connected with them, and since they lay on their sides, and since those having small necks had the shoulder broken before the burial, as Boehlau observes, they were undoubtedly burials of infants. The proportion of *enchytrismoi* at a number of sites was as follows:

Vroulia, Rhodes, 43 of 125 burials (34.4%), sixth century B.C.³⁶

Ialysus, Rhodes, 104 of ca. 400 (26%), seventh to early fifth centuries, mostly sixth century.³⁷

Macri Langoni, Rhodes, 70 of 260 (27%), 18 adults, sixth to early fifth centuries.³⁸

²⁵ *B.S.A.*, XXXV, 1934-1935, pp. 6 f.

²⁶ *Korakou*, pp. 100 f.

²⁷ *Αρχ. Έφ.*, 1895, p. 251.

²⁸ Evans, *The Palace of Minos at Knossos*, London, 1921, I, p. 584; Hatzidakis in *Δελτίον*, IV, 1918, p. 61 and Pl. VI; D. Levi, *Annuario*, X-XII, 1927-1929, pp. 544 f.

²⁹ Evans, *op. cit.*, p. 585.

³⁰ Seager, *Explorations in the Island of Mochlos*, Boston and New York, 1912, p. 88, fig. 51.

³¹ *Ath. Mitt.*, LIX, 1934, pp. 160 f.

³² *Tiryns*, I, pp. 130 f.

³³ *Arch. Anz.*, XXVII, 1912, p. 259; *B.S.A.*, XVII, 1910-1911, pp. 6-9.

³⁴ *Not. Scav.*, IV, 1907, pp. 46.

³⁵ J. Boehlau, *Aus Ionischen und Italischen Nekrópolen*, Leipzig, 1898, pp. 23 f.

³⁶ Kinch, *Vroulia*, p. 89.

³⁷ *Clara Rhodos*, I, 1928, pp. 65 ff.; III, 1929, pp. 111-119; VIII, 1936, pp. 9-205.

³⁸ *Clara Rhodos*, IV, 1931, pp. 10 ff., 295-335.

Caulonia, 39 of 130 (30%), sixth to fourth centuries.³⁹

Olynthus, 165 of 644 (25.6%), late sixth to mid-fourth centuries.

Del Fusco Cemetery at Syracuse, 94 of 380 (24%), sixth century; ⁴⁰ but 1 of 94 (1%), fifth and fourth centuries.⁴¹

Gela, 233 of 570 (40%), archaic; ⁴² but 6 of 192 (3.13%), fifth century.

Athens, 17 of 186 (9.14%), fifth and fourth centuries.⁴³

Vases were less frequently used in the fifth and fourth centuries than in the age preceding. It cannot mean that infant mortality was lower, for at no time could it have been so low as 9.14 per cent. of the burials, as were the *enchytrismoi* at Athens, or 3.13 per cent., as at Gela, or 1 per cent., as at Syracuse. Nor could the difference between these places and Olynthus and Caulonia have been so great as these figures would indicate. But, as we have seen above, not all infants and small children were buried in pots, some had other forms of graves, and the number of the unprotected type increases. This points to a change and a simplification of burial customs. Furthermore, in the early period adults were very frequently buried in large pithoi and other storage jars, but by the fifth century few such were found. Their place was taken by cheaper coffins. Children continued to be buried in jars because the vessels in which they were contained were smaller and less expensive, but even they were largely replaced in the course of time by forms either cheaper or equally cheap and more convenient. See p. 173, note 52.

Enchytrismoi throw no light on the subject of infanticide or child exposure, except that they clarify some of the terminology used. Until recently it had been generally accepted that newly born infants, especially if they were girls, were frequently placed in vessels and exposed to death. The *enchytrismoi* found in the cemeteries have been taken as proof for exposure,⁴⁴ but the evidence now available contradicts any such conclusion. The bones of a new-born babe are very soft; except for parts of the face

³⁹ *Mon. Ant.*, XXIII, 1914, pp. 906-941.

⁴⁰ *Not. Scav.*, III, 1895, pp. 109-192.

⁴¹ *Not. Scav.*, XII, 1915, p. 182.

⁴² *Mon. Ant.*, XVII, 1908, p. 242.

⁴³ *Ath. Mitt.*, XVIII, 1893, pp. 73-191.

⁴⁴ Wilamowitz, *Staat und Gesellschaft*, I, p. 35.

and skull they are really only cartilage, which disintegrates almost as readily as the flesh. No cartilage, even of mature persons, has been found in any of the cemeteries we have mentioned above. Since, then, the skeleton of a child does not become firm bone for some months after birth, it is not likely that the skeleton of any infant less than half a year to a year of age has yet been found. There is, furthermore, no age limit to the persons buried in earthen vessels. At Olynthus they have been found ranging up to several years old, and at other sites they ranged from infants too young for any bones to survive up to full grown adults, as has been pointed out above. The word ἐγχυτρίζειν has often been cited as proof of exposure, but this definition is found only in late writers, especially Hesychius⁴⁵ and the scholiast on Aristophanes.⁴⁶ Its meaning "to put to death" may as well have come from the custom of burying adults in "pots" as new-born infants, since pots had served as coffins in olden days. The reference in Aristophanes, *Wasps*, 288-9, "Here comes a man from Thrace, pot him (ὅν ὅπως ἐγχυτρίσεις)," certainly does not indicate any connection with infant exposure, the scholiast notwithstanding.

When the statements of the scholiast are thus weakened, the horrible custom of exposure becomes largely mythological and one does not expect to find much evidence of it in the cemeteries. In the first place, the reasons for exposure would determine the result. The motives might be religious, economical or social. The religious motive, which has never been proposed by writers on the subject, may be summarily dismissed since human sacrifice has not been practiced in historic Greece. Economic infanticide took its toll of infants, though there is reason to believe that economic exposures were more often foundlings than infanticides. Economic exposure fluctuated with the hardships of the times and reached its apex in the third and fourth centuries of the Roman Empire. No doubt the social motive has produced its exposures, as it has in every age, including our own. The great number of infanticides and other exposures that occur in our day when women are ashamed

⁴⁵ *S. v.* ἐγχυτρίζειν, ἐγχυτρίσις, χυτρίζειν, χυτρίσις.

⁴⁶ *Ad* Aristophanes, *Wasps*, 289 f.

of motherhood, for being unwed or for numerous other reasons, is appalling; though, fortunately, the facts are seldom brought before the public. Ancient Greece had such cases, as we learn from Aristophanes, *Clouds*, 530-532, where a girl, wishing to save her reputation, exposed (ἐξέθηκα) her child for someone else to rear. Deformed infants were probably exposed more freely than they are now, since the Greeks did not have the severe Christian taboo against ending a life which would be a burden to itself and others.⁴⁷ The theory of *Liberorum Patria Potestas*, which prevailed until Christian times, gave the father greater liberty. There are in every age some parents who do not wish to be burdened with children even though they can afford them, and the Greeks and Romans had their share of foundlings and infanticides from them, especially in Hellenistic times and under the Roman Empire.

Exposure was evidently more popular in theory and mythology than in practice. Aristotle⁴⁸ and Plato⁴⁹ find it necessary to permit exposure in their ideal states. But there is no reason to believe that the custom was actually prevalent, even if noble examples could be drawn from mythology. Zeus, Poseidon, Hephaestus, Asclepius, Ion, Daphnis, Chloe, Oedipus, Paris, Jason, Romulus, Remus, Moses, Sargon, and Cyrus all had been exposed in infancy.

Since, then, the number of "exposures" where the infant was deliberately placed in an out-of-the-way locality so that it should die was, in all probability, very small indeed;⁵⁰ since, if there were

⁴⁷ Cf. Aristotle, *Pol.*, 1335 b 19; Cicero, *De Leg.*, III, 8.

⁴⁸ *Pol.*, II, 6, 13; VII, 44; VII, 14, 10.

⁴⁹ *Rep.*, 460 C; *Timaeus*, 19 A; *Laws*, V, 740.

⁵⁰ Professor La Rue Van Hook, *Trans. Amer. Phil. Assoc.*, LI, 1920, pp. 134-145, argues that few references in ancient literature about infant exposure can be applied to the fifth and fourth centuries B. C., though he believes that "abandonment of infants occurred to a greater or less degree throughout the Greek world from the earliest times, and in the late Hellenistic period became, it appears, an actual menace and evil" (p. 144). H. Bolkestein, *Class. Phil.*, XVII, 1922, pp. 222-239, goes even further and says: "an unrestricted right which the Greek father is alleged to have possessed, of killing or exposing his legitimate children born in wedlock, and acknowledged by him as such, has never been demonstrated, either as regards prehistoric or historic times: nor have facts or expressions been adduced, from which it appears, or must be inferred, that, in the Athens of the fifth and fourth century B. C., the exposure of children by their parents (fathers) was common,

such exposures, many would then presumably have been buried in the cemeteries; and since some of the *enchytrismoι* found in the cemeteries were not of new-born infants, but of older children, *enchytrismoι* must be regarded entirely as normal burials. They cannot be regarded as an index of infant mortality, since other forms of burial for infants were also used to various extents in the various localities or at different times. They do give us a minimum index, but the actual infant mortality may be considerably higher. Nor is there any evidence that a special part of any of the Olynthian cemeteries was set apart only for the burial of children as in the cemetery at Marathon,⁵¹ or the earlier seventh century cemetery at Phalerum.⁵²

or was considered common; it has even appeared that not a single case of such action can be mentioned, and that people did not expect it in their own surroundings, or considered it as an inhuman survival from primitive times" (p. 237). H. Bennett, *Class. Jour.*, XVIII, 1923, p. 351, says: "The Greeks practiced exposure of children all through their history." A. Cameron, *Cl. Rev.*, XLVI, 1932, p. 107, "Exposure was familiar even in Athens of the classical period." In view of our excavations I believe that exposure of infants was rare and has been exaggerated in the handbooks.

⁵¹ Cf. Soteriades, *Πρακτικά*, 1934, pp. 37 ff.

⁵² Rodney S. Young in *A.J.A.*, XLVI, 1942, p. 24 says: "Of the twenty-six all but one were urn-burials of small children; presumably the part of the cemetery in which they were found was devoted in the seventh century exclusively to burials of children" . . . "Of the six methods of burial . . . burial in urns was used only for small children." This may be true of the seventh and sixth centuries B. C., but at Olynthus and elsewhere urns or rather pithoi, jars and amphoras could be used for older children and even for adults. Cf. pp. 170-171 above.

CHAPTER IV

KTERISMATA

The objects found in the graves will not be described in this volume inasmuch as they have been or will be published in separate volumes of the *Excavations at Olynthus*. Most of the objects found in the graves were accounted for in the first part of this volume, and in the present chapter an attempt is made to synthesize the material so as to reveal its significance.

Not all graves contained furniture. Only a little more than 60 per cent. of them contained any objects at all, and often the objects were no more than poorly-made little saucers. The case at Olynthus is not unique; it is quite normal for the latter part of the fifth century and for the fourth century before Christ. At Macri Langoni, Rhodes, about 60 per cent. of the graves contained furniture of some kind, at Ialysus over 60 per cent. (of 160 inhumations), at Samos about 30 per cent., at Thera about 50 per cent., the older graves at Myrina about 10 per cent. The rate for Thera should be somewhat higher, for the custom there was that of secondary cremation and a large quantity of objects was still in the crematory, which were transferred to the urns. These graves are all earlier than those at Olynthus. There was a tendency to place less furniture in the graves, as time went on. At Athens nearly all the Dipylon graves contained furniture—furniture of value and much of it—but in the fifth and fourth centuries many graves contained nothing at all and others only a very little. No weapons were found, only a few strigils, a little jewelry, and the customary vases, which here, however, were often of the finest. The graves at Syracuse, which were never rich in furniture, were poorest in the fifth and fourth centuries B. C., when the city was at the height of her power and glory. Most of the graves were devoid of furniture, and those which had any at all had only inconspicuous vases, terracottas, and bronze fibulae and pins from the clothing, with a few articles of jewelry.

The graves at Corinth seem to have been somewhat richer than most contemporary graves.¹ The graves opened there by modern archaeologists generally contained at least a scyphus, an oenochoe and a lamp, with often a number of other objects, including egg shells and silver obols. Caesar's colonists made a practice of digging up the graves and selling the loot, which often brought high prices.² The graves of Boeotia were even richer in furniture than those of Corinth. At Rhitsona some of the graves contained large quantities of vases and terracotta figurines besides jewelry. One grave contained about 235 objects, including a bronze tripod.³ Another contained 447 objects, mostly vases but also a terracotta figurine and a silver phiale.⁴ Some of the graves in South Russia were among the richest Greek graves ever found, and others again of the same age contained meager or no furniture. Here was seen the greatest difference between rich and poor, between ruler and slave, anywhere among the ancient Greeks. This was apparently a custom carried down from Mycenaean times, probably not by Greeks but by Scythians more or less followed by Greeks. It was not changed until far into the Christian era.⁵

Lack of furniture in a cemetery is not a sign of poverty, nor an abundance of it a sign of wealth. Furniture in the graves and the amount of it are determined by custom, religious or social, each people or locality more or less determining its own custom. A condition of poverty or wealth may determine the custom, but invariably it is only one of many factors. The Mycenaean people buried a large amount of wealth with the dead of the upper classes in their day of glory, and later when from other sources we detect a condition of poverty we find only an effort to include wealth in the graves; but at Athens the graves of the Periclean era con-

¹ *A.J.A.*, XXXII, 1928, pp. 490-495; XXXIII, 1929, pp. 536-546; XXXIV, 1930, pp. 403-431.

² Strabo, VIII, 6, 23.

³ *B.S.A.*, XIV, 1907, p. 281, grave 26. Much interesting material on methods of burial and on grave furniture will be found in Ure, *Sixth and Fifth Century Pottery from Excavations Made at Rhitsona*, London, 1927; and Ure, *Aryballoi and Figurines from Rhitsona in Boeotia*, Cambridge, Eng., 1934.

⁴ *B.S.A.*, XIV, 1907, pp. 305 f.

⁵ Cf. Minns, *Scythians and Greeks*, pp. 415 ff.

tained no more, but rather less, than the graves of the preceding and succeeding eras; and the graves of Syracuse of the fifth and fourth centuries were practically devoid of furniture of any kind. The Spartans permitted nothing to be buried with the dead.⁶ The Terramara people in Italy were of considerable wealth, but very little of it was found in the graves.⁷ The Albanians in the Caucasus region were accustomed to bury a man's *χρήματα* with him.⁸ The people on the Volga in the tenth century A. D. buried one third of a man's possessions with him, according to the account of the Arabian traveller, Ibn Fadlan (for the years 921-922). Among the Christians the objects were generally not placed in the graves, but were given to the church for the benefit of the soul.⁹ By the time of Christianity the problem of whether the furniture was for the body of the deceased or for his soul had been settled completely; but among the Greeks the question was still open.¹⁰

While the quantity or paucity of furniture in a cemetery is not necessarily an index to the wealth of the community, within the cemetery itself at any particular date the different types of graves seem to have some relation to the amount of wealth or furniture they contain. The difference in the number of objects in the graves of the various types is too great to be accidental. The percentage of graves containing furniture was 88.68 for cremations; 84.85 for wooden coffins; 77 for flat tile A graves; 18.5 for flat tile B; 64.7 for gabled tile coverings; 64.15 for unprotected burials; and 29 for *enchytrismoι*. Most of the cremations contained furniture. The percentage as given is actually too low. From the various stages of disintegration of the objects as they were found, it is certain that many things were too much disintegrated to have been discovered in the excavations. One would expect especially jewelry and other thin metal objects to have vanished after being burnt; and the following table corroborates the supposition. In cremations pottery (of the ceremonial and table varieties — down to

⁶ Plutarch, *Lycurgus*, 27.

⁷ Von Duhn, *Italische Gräberkunde*, p. 266.

⁸ Strabo, XI, 4, 8.

⁹ Cf. Bruck, *Totentheil und Seelgerät*, p. 157 and references given there.

¹⁰ Cf. *ibid.*, pp. 168 ff. for the ancient literature on the subject.

pyxides) occurred in more than twice as many graves as jewelry and other items did, while in wooden coffin graves pottery was found in only a little more than half as many burials.

Frequently more than one object of a kind occurred in a grave, but the figures given in the table are the quantities of graves in which each kind of object was found.

	Cre- mation	Wooden coffin	Flat tile A	Flat tile B	Gabled tile	Unpro- tected	<i>Enchy- trismos</i>	Other
Total burials	53	33	13	27	176	147	165	30
Lecythi	11	12	3	1	24	23	1	4
Alabastra	1	1	..	..	1	1	..	2
Lagyni .....	..	..	..	..	1	1	..	..
Canthari	2	..	..	..	4	1	..	..
Cylices	3	..	..	..	..	10	..	1
Scephi	26	2	3	1	14	17	17	2
One-handled bowls.....	6	..	1	..	14	8	7	3
Saucers	3	1	2	..	7	6	20	2
Pitchers	5	3	..	1	12	6	3	3
Hydriae	3	1	..	..	1	..	..	1
Two-handled covered bowls	3	1	2	..	11	4	9	1
Handleless bowls	2	2	..	..	2	4	1	..
Plemochōēs (Cothons)....	..	2	..	..	1	4	1	..
Craters .....	..	..	..	..	..	..	..	..
Amphorae	1	1	..	..	1	4	2	..
Baby feeders.....	..	..	3	..	3	3	1	1
Pyxides	4	1	..	..	4	2	..	1
Covers	3	..	1	..	..	..	..	..
Lamps .....	..	..	1	..	..	1	..	..
Glass bottles .....	..	1	..	..	..	1	..	..
Terracottas	6	10	..	1	19	13	9	2
Coins	3	4	2	1	37	15	3	1
Astragali	3	7	1	1	20	4	3	2
Strigils	3	4	..	..	21	21	..	1
Implements .....	..	..	..	..	..	4	2	..
Adornments	6	9	4	1	18	12	13	5
Miscellaneous	7	4	1	..	12	8	4	3
Totals	101	66	24	7	227	173	96	35

It will be noticed that the totals in the columns under cremation and under wooden coffin graves are about twice the total number of burials of these types, as given at the top of the table, while under *enchytrismoi* and especially under flat tile type B graves the total is only a small part of the number of burials.

Slightly less furniture was found in the cremations at Macri Langoni, Rhodes, than in the more common stone slab sarcophagi, but since cremations were comparatively few and since about 80 per cent. of all graves contained furniture, the difference is not significant. All chamber tombs contained furniture, but pithoi were generally without it.

Although the two monolithic sarcophagi at Olynthus lacked furniture, it is a general rule that the better and more careful the grave, the more furniture it contained. This gives us another reason to believe that the so-called unprotected burials were nicely wrapped, for a considerable proportion of them contained furniture, and in many graves the furniture was abundant and of good quality.

At Macri Langoni the graves of young men and women generally had a large quantity of furniture, but graves of old persons had only a little or none at all.¹¹ At Olynthus, unfortunately, the skeletons were not well preserved and the ages could not be determined for most burials. *Enchytrismoï* contained fewer unguent vases (lecythi, alabastra and lagyni) and coins and no strigils, and much of the pottery consisted of small bowls or saucers.

At Olynthus there was very little order in the placing of objects in the graves. The objects were most often found between the thighs or just outside of the thighs, by the hands of the skeleton, but they were also found beside the feet or the head. Jewelry that was worn was, of course, in its appropriate place, but other jewelry and adornment was found scattered anywhere about the grave. Coins were usually placed in the mouth, and strigils were generally placed between the thighs or over one leg, near the hip, generally with the handle outward, as if it had been held in the hand. Lecythi and similar vases were most often placed about the thighs with the mouth toward the head end of the grave. But these rules were by no means strictly followed.

Not all the furniture was found within the grave. Seventeen graves had objects beside them or in the fill over them that surely belonged with the burial. Undoubtedly many of the sporadic finds

¹¹ *Clara Rhodes*, IV, 1931, p. 18.

in the cemeteries had been thrown in the fill as the earth was being replaced over the graves.¹² The objects found over graves at Olynthus consisted of vases (ointment bottles, lecanæ, saucers, and in three cases baby feeders), terracottas, coins, jewelry, and a loom weight. They occurred around almost all forms of graves, both of adults and of children, though more often around the graves of children.

Graves of the earlier cemeteries seem to show a somewhat more regular disposition of furniture, as one would expect in more carefully constructed graves. The cemeteries at Rhodes had most of the furniture in the graves, though occasionally vases were also found outside, generally pitchers or cups.¹³ The furniture was generally placed at the feet of the corpse, though sometimes at the head, or both at the feet and the head. The large amphoræ and equivalent vessels stood outside, generally also at the foot end, and were often covered by shallow vases. In cases of *enchytrismo* the furniture was placed in the vessel or outside, or both in and outside, without rule.¹⁴ The large pithoi, if they contained any furniture, had it inside.

At Corinth the furniture was generally placed under a stone at the head of the grave. The large jar, covered by a bowl, stood outside of the coffin at the foot,¹⁵ quite similar to the custom at Rhodes. At Rhitsona most of the objects were found at the two ends of the graves, beyond the head and feet,¹⁶ where the vases were at times piled to a considerable height. They were supposedly stacked at the ends of a wooden coffin or bier, which has disintegrated, leaving only a few iron nails. At Athens the objects were placed about the body without any form of rule. There were

¹² Objects were also found in the fill at other sites. Cf. *Mon. Ant.*, XVII, 1906, grave 257, pp. 36 f., fig. 100; Boehlau, *Aus Ionischen und Italischen Nekropolen*, p. 23.

¹³ E. g. at Macri Langoni, graves 21, 26, 32, 79, 97, 100, 111, etc., *Clara Rhodos*, IV, 1931, pp. 91 f., 104 f., 113 f., 179 f., 196 f., 198 f., 227 f.

¹⁴ Cf. *Clara Rhodos*, IV, 1931, p. 18.

¹⁵ *A.J.A.*, XXXIV, 1930, pp. 403-431. One grave was re-used by the Romans, at which time the original furniture was arranged on the outside; *A.J.A.*, XXXIII, 1929, p. 542.

¹⁶ *B.S.A.*, XIV, 1907, pp. 244.

exceptions. A grave excavated by Stackelberg, evidently a secondary burial, had the objects and a few bones of the skeleton of a child very symmetrically arranged in an oval terracotta coffin.¹⁷ The sarcophagi at Al Mina had some objects inside and some outside.¹⁸ The same is true of those at Syracuse. At Thera, where the custom was secondary cremation, the furniture was thrown upon the crematories and later collected with the bones into urns and buried in the family tombs. But many vases and sherds were left in the crematories. Many objects were found in offering pits and probably were of later rites than those at the funeral.¹⁹ At Assarlik and several other places some of the pottery was not burnt, whence Bruck concludes that they were placed in the graves after the cremation.²⁰ At Halae, in the fifth and fourth centuries, terracottas were placed in large numbers around and on top of sarcophagi.²¹ At Chauchitsa vases were found at the head and at the foot.²²

While it is logical for some items of furniture to be placed at certain parts of the body, and while the logical placing of some of these items was usually carried out, there were many exceptions. In some cases the exceptions were so numerous that the logical placing cannot be regarded as having been a rule at Olynthus. Thus, strigils are logically held in the hand, but of the fifty-six strigils found in the graves hardly more than half a dozen actually had been so placed, though many were placed near the hands. The gilded laurel wreath in grave 72 was placed on the head. Coins were regularly placed in the mouth, but exceptions occur. Much of the jewelry was worn by the corpse; and in many cases the objects of jewelry were in the appropriate places but the skeleton was too fragmentary to tell if they were actually worn. The following significant examples illustrate the careless placing of objects. In grave 4 (adult) a finger-ring was found on the left

¹⁷ Stackelberg, *Gräber der Hellenen*, Pl. VIII.

¹⁸ *J.H.S.*, LVIII, 1938, pp. 155 ff.

¹⁹ Pfuhl in *Ath. Mitt.*, XXVIII, 1903, pp. 1 ff.

²⁰ Bruck, *Totenteil und Seelgerät*, p. 141.

²¹ *A.J.A.*, XIX, 1915, p. 426.

²² *B.S.A.*, XXIV, 1919, pp. 6-12.

shoulder. Grave 7 (adult) had a coin beyond the left side of the head instead of in the mouth as usual. Grave 44 (adult) had a ring and a bead in the mouth together with a coin. Grave 47 (child) had a baby feeder at the feet. One should expect baby feeders near the mouth or hands, but they were merely thrown in or near the grave. Grave 87, an *enchytrismos*, had an earring under a small dish at the side of the body. Grave 92 (adult) had a coin on top of the skull. Grave 110 (adult) had three coins in the mouth and another on the shoulder. Grave 150 (child) had two earrings on the right side of the pelvis. Grave 157 (adult) had a coin in the mouth but another beyond the right shoulder. Grave 223 (adult) had a finger-ring on the left shoulder. Grave 239 (child) had two earrings at the center of the grave. Grave 254 (child) had a bracelet at the right of the right foot along with terracotta figurines and vases. Grave 301 (child) had a bracelet beside the head and another at the feet. Grave 324 (child) had four coins on the stomach. Grave 256 (child) had three coins on the chest and two earrings by the pelvis.

Many objects found in graves of children and infants were too large to have been used by them. Nearly all jewelry was the mature woman's size. Earrings were found in five *enchytrismoï* and six other child graves, finger-rings in three *enchytrismoï* and two other child graves, and bracelets in five *enchytrismoï* and three other child graves; and all these articles were too large for the infants and children in whose graves they were found. The ring found in grave 380 was still around the bone of a finger of the left hand. The bone measured 0.005 m. in diameter and the ring 0.018 m., inside diameter. This size is large even for the average mature woman. One of the rings in grave 363 was the same size and the other slightly smaller. The bracelet in this grave measured 0.041 m. inside diameter. Most of the Greek bracelets could be adjusted for size by springing them apart or together; but, as they were found in the graves, they measured from 0.033 to 0.069 m. in diameter, averaging between 0.04 and 0.05 m. These are by all indications the jewelry of mature women and not of the children themselves. In addition to jewelry children's graves also contained other objects of large size. Two graves (graves 121 and

587) contained large iron knives. All strigils in children's graves were as large as those found in graves of adults. A sword was also found in the grave of a child at Halae;²³ and at Corinth a child's grave contained a large helmet, and another ten large strigils.²⁴

Were these objects placed in the graves with the idea that the child would grow to maturity in Hades and have use of them?²⁵ Not likely, for even the sex was not strictly regarded in contributing the furniture. Strigils, found both in children's and adults' graves (31 adults and 13 children and youths besides the cremations, where the age of the deceased was uncertain), were in six cases (three children and three adults) found together with women's jewelry and loom weights. Strigils occurred in women's graves and women's jewelry in the graves of men. Terracottas appropriate to children were found in graves of adults, and *vice versa*.

The furniture found around the coffin and in the fill above the coffin, the great number of objects found out of regular or logical places around the skeletons and the objects which were inappropriate to age or sex all point not only to rather free and lax funeral customs, but they also indicate that relatives and friends made the contributions at the graves—that the objects did not belong to the deceased but to the persons who donated them.

At many sites, especially in South Russia and in Rhodes, a large amount of pottery was found broken. Much of the pottery in Olynthian graves was also broken. Occasionally parts of the vases were somewhat scattered and sometimes pieces were missing, but in most instances the pottery was obviously crushed by the weight and the shifting of earth. There is no evidence that they were deliberately broken.²⁶ At Olynthus, as in Rhodes,²⁷ the pottery most broken was in cremation graves. It was also most broken

²³ *A.J.A.*, XIX, 1915, p. 426.

²⁴ *A.J.A.*, XXXIV, 1930, p. 426.

²⁵ *Ibid.*

²⁶ Jacopi comes to the same conclusion from the graves in Rhodes, *Clara Rhodos*, III, 1929, p. 13.

²⁷ *Clara Rhodos*, I, 1928, pp. 66 f.

where the graves were deepest. It appears from these observations that some of the pottery was tossed into the graves, probably after having served in some ritual. The pottery in deep graves and in cremations was more broken because it was thrown from a greater distance.

The reason for the pottery in graves, in so far as it concerns the customs and daily life of the ancient Greeks, is difficult to reconstruct with any certainty. Although the archaeologist's interest in graves has been largely in the pottery they contained, it was only in the artistic value of the pottery and no real attempt has been made to ascertain the reason for the pottery being there. Wace concludes that the large number of cylices found in the chamber tombs at Mycenae must have been used in funeral rites,²⁸ and that the alabastra had a special purpose in the rites.²⁹ Whitaker comes to a similar conclusion from the plain vases around less plain cinerary urns at Motya.³⁰ Schefold sees rather highly symbolical rites in some of the pottery found in South Russia.³¹ Bruck thinks the furniture was placed in the graves partly because of the idea of the continuity of life after death but more because of the fear of the dead.³² There is much to be said for his interpretation in so far as the origin of the custom is concerned, but it is significant that the very objects most weighty in buying off the dead are most often wanting in the graves of Classical Greece. Jacopi's classification of the furniture according to their uses is logical, but he assumes it was all for the deceased and does not elaborate further.³³ We have shown that many of the objects such as unguent vases and jewelry, which he classes as objects belonging to the deceased, did not belong to the deceased.

The pottery may be divided into four general classes. They are (1) the amphorae, hydriae, loutrophori and other large vessels found generally outside at the ends of the graves, (2) the flask-like

²⁸ *The Chamber Tombs at Mycenae*, p. 131.

²⁹ *Ibid.*, p. 143.

³⁰ *Motya*, p. 225.

³¹ *Untersuchungen zu den Kertscher Vasen*, pp. 148 ff.

³² Bruck, *op. cit.*, pp. 34-38.

³³ *Clara Rhodos*, III, 1929, p. 13.

vases whose primary purpose was to contain unguents and oils, (3) the cup-like vases to pour libations and (4) a variety of vases that might be called "table ware."

(1) Aristophanes in a description of a funeral layout mentions a water-crock set at the door of the house in which the dead person lay.³⁴ This was a vessel of water obtained from another house and set before the house of the deceased for all who come out to purify themselves from the stain of death.³⁵

Large vessels have often been found in graves, generally large coarse amphorae but also painted amphorae and hydriae and the tall slender variety of amphorae known as "loutrophori." The last kind was also used in wedding rites; and from this use Wolters concludes that they were used only in graves of the unmarried.³⁶ This distinctive use is possible only if restricted to loutrophori, for it certainly does not hold for plain amphorae, which in certain localities were found in almost every grave.³⁷ Since the two types are not distinct, but shade into each other by various intermediate forms, the function of all may be regarded as similar. They may have contained lustral water for the deceased to purify himself as he leaves the grave and goes to the world of Hades. Possibly this is the reason that the vessel was usually outside of the coffin at the head or foot (though it was occasionally inside, as in grave 595 at Olynthus). It may be, as Jacopi thinks, that these vessels were brought full of water for the deceased to use in his bath; the bath is part of the grooming for the feasts in honor of the dead. It may be more significant that the jar was usually covered with a dish—an open dish of the phiale or cylix type. Was this dish used in connection with the bath? Or was it used with lustral purification? It is the cup commonly used for pouring libations, as indicated on vase paintings and sculptured reliefs. Now, if the dead shared in the funeral feasts, they naturally also poured libations, as the

³⁴ *Ecclesiastusae*, 1033.

³⁵ Cf. Euripides, *Alceste*, 99 ff.; the scholiast on Aristophanes, *Clouds*, 838; Pollux, VIII, 68.

³⁶ *Ath. Mitt.*, XVI, 1891, pp. 371 ff.; cf. *Ath. Mitt.*, XVIII, 1893, p. 145.

³⁷ E. g. at S. Giorgio and at Ialysus, *Clara Rhodos*, VIII, 1936, p. 44; *ibid.*, III, 1929, p. 13. The modern Greeks today often put an amphora at the foot of the grave.

reliefs show.³⁸ Could these vessels, then, not have contained wine, oil, milk, or water to be used for libations, as we learn from Homer?³⁹ Scenes on vases, especially South Italian vases, often depict all sorts of vessels (amphorae, hydriae, canthari, craters, loutrophori, and the like) standing on and around grave stelae.⁴⁰ The craters, canthari and phialae certainly suggest wine or some other liquid for libation or drink, and the baskets of food suggest feasts, while the lecythi suggest the preparation for the feasts. On a funeral relief from Teos one person is pouring liquid from a typical fourth century storage amphora into a crater while another is stirring it.⁴¹ The liquid must be water which is being mixed with wine.

It is not likely that in the Classical Age these vessels contained anything expensive. From the evidence, therefore, it is probable that they contained water for libation,⁴² purification, or bath. Possibly it is another case of several closely related symbolisms being applied to one custom.

(2) The use of lecythi was not restricted to the grave. Lecythi were used wherever vases of such size and shape were convenient. But they were so common with the rites of funerals that a class of lecythi was made and decorated especially for that use.⁴³ Lecythi were simply flasks for containing oil or any other liquid. Sometimes they were used for perfumes because of their very fine and aristocratic shape, which, with the beautiful decorations to which they readily lent themselves, bespoke the richness of their contents; but they were also used to contain oil, the ancient soap, for the bather and the athlete. The humbler varieties of lecythi were very common in the kitchen. Plato tells of a handy man who made all his own things including strigil and lecythus,⁴⁴ on which the

³⁸ Cf. Conze, *Die Attischen Grabreliefs*, Pls. CCLI ff. and Kieseritsky, *Griechische Grabreliefs aus Südrussland*, Pls. 49-54.

³⁹ *Iliad*, XXIII, 170.

⁴⁰ Cf. R. Pagenstecher, *Unteritalische Grabdenkmäler*.

⁴¹ *Jb. Arch. I.*, XXIX, 1914, p. 220, fig. 14.

⁴² For water as libation for purification cf. Margherita Guarducci in *Studi e Materiali*, XIV, 1938, pp. 168-172; Aeschylus, *Agamemnon*, 201-202, etc.

⁴³ Aristophanes, *Ecclesiazusae*, 996.

⁴⁴ Plato, *Hippias Minor*, 368 c.

scholiast comments that lecythi were filled with perfume, with which the deceased were anointed, and placed near the beds (biers) of the dead. This is corroborated in Aristophanes's *Ecclesiazusae*, 1030, where the young man describes a funeral *prothesis* instead of a wedding couch: "Then strew the couch with dittany, and set four well-crushed branches of the vine beneath; bind on the fillets; set the lecythi beside; and at the door set the water-crock." Lucian in his speech on mourning, in the tone of Robert Ingersoll, describes the corpse royally perfumed and garlanded as if to make death less repulsive with magnificence.⁴⁵ The κρωσσοί of oil and myrrh carried in the Plataean's annual procession to the tombs of the casualties of the Persian War were probably jars larger than lecythi, for a large quantity was used to anoint the tombstones,⁴⁶ and the word for a smaller jar is κρωσσίδιον. From its use as an oil and unguent container the lecythus became so commonly associated with the grave that gravestones were often made in the shape of lecythi.⁴⁷

There is no way of knowing whether the lecythi were placed in the graves empty or full of unguent. It may be that the oil was used in bathing the corpse and the perfume in anointing it, and that the empty vessels were left on the bier and carried to the grave. This probably is the usual history, but there is also reason to believe that flasks of oil and unguent were placed in the tomb symbolically for the use of the deceased. If the deceased is host at the *perideipnon* he must be properly groomed. He may be prepared beforehand for the first funeral feast, but there are other feasts to follow for which his family⁴⁸ will not be able to bathe and anoint him. Since the soul is the part of him that participates in the feast and not the physical body, he receives the oil only

⁴⁵ Lucian, *De Luctu*, 11.

⁴⁶ Plutarch, *Aristides*, XXI, 3.

⁴⁷ Cf. for example Conze, *Die Attischen Grabreliefs*, Pls. C, CCXVI, CCXXIII, CCXXIX-CCXLII, CCLXXI-CCXC (lecythi sculptured on grave-steles), CCCLX-CCCLXXI (sculptured stone lecythi). Cf. especially L. J. Elferink, *Lekythos*, Amsterdam, 1934. For the use of incense in the funerals of Egyptians, Babylonians, Jews and Christians, cf. E. Atchley, *A History of the Use of Incense in Divine Worship*.

⁴⁸ Generally the women of the family prepared the corpse.

symbolically and there is really no necessity of having oil in the bottles, an empty bottle will fulfil the symbol. A lecythus of the middle of the fifth century from a cremation pit at Athens had a false interior,⁴⁹ so that a small amount of oil filled the bottle. This was probably a compromise between the full and empty bottle, appearing much less stingy than a partly filled bottle; but it could possibly have been a sales trick on the part of the perfumer, analogous to vases found in Palestine, with the interior partly filled with terracotta. If it is not a sales trick, it indicates that the contents were more costly than the vase.

Other flask-like vases probably had the same use as lecythi. Before the fifth century alabastra and aryballi were more common in graves than lecythi. The Corinthians had worked up a large trade in these vases, and they met keen competition in the Rhodian ware; but then their ware was largely supplanted by Athenian lecythi. Aryballi were almost entirely discontinued in the Classical Age, but alabastra continued to be used in modest numbers into Roman times, very often made of the original material, alabaster, and increasingly, as time went on, of glass.

At Olynthus 105 lecythi were found in 79 graves. Fifty-one graves in which they were found were those of adults, eighteen were of children and ten were undetermined. Only one *enchytrismos* contained a lecythus. In addition to the lecythi there were only six alabastra or aryballi and two lagyni in the graves, which presumably served the same purpose.

(3) The third group is the libation group: scyphi, canthari, phialae, cylices, and one-handled cups, as they were found at Olynthus (cf. the table on p. 177). The pouring of libations was not confined to any one type of vase in particular, as we see from the variety of words used in literature and from the scenes on vases, and pouring libations was a most common occurrence in ancient Greece. Libations were poured to the gods and heroes on every occasion. Naturally then the dead would be invoked with libations at his funeral⁵⁰ or at subsequent celebrations pertaining

⁴⁹ *Hesperia*, VI, 1937, p. 360.

⁵⁰ *Iliad*, XXIII, 220; Aeschylus, *Choephoroi*, 87 and 129; Lucian, *De Luctu*, 19. Lucian regards the people as believing the dead received benefits from their libations

to it, such as the *trita*, the *enata*, the *triakades*, and annual feasts, as well as the *perideipnon*, which took place immediately after the burial. On these occasions the deceased was regarded as host. And being host he would also pour libations, and therefore a libation cup was placed in his grave. This is only a suggestion about which one cannot be dogmatic, for the same vases may also have been part of the table furniture for the *perideipnon*. In the polyandrion of the Thespians a cantharus was found filled with lime and another contained the bones of a small bird.⁵¹ But there are a few details which suggest the use of these vases as libation cups, chief of which are the facts that these cups were used for libations and that so many of them were found in graves. At Olynthus the scyphus was the main cup of this group, 106 of them having been found, one more than the number of lecythi, in 82 graves. The inclusion of all the cups of this group gives us 153 graves in which they were found as against 87 for the unguent vase group. A striking point is that cremations, which are probably the graves of the more pious, have the most libation cups, while wooden coffins, the graves of the rich, have much fewer, and flat tile A graves have almost none. Sixteen miniature Corinthian scyphi were found, nearly all in graves of infants and small children. Many cups were found outside of the graves proper. These may be cups from which friends and relatives poured libations and which they then cast on the graves. This may account for the large number of cups in cremations which were so badly broken, and may also be the reason for the broken cylices before the tomb door at Mycenae.

(4) As soon as the burial had taken place the relatives and friends of the deceased returned from the grave and celebrated the *perideipnon*, the feast which the deceased was supposed to be giving as a thank-feast for his burial, and in which he was host.⁵² It seems not to have been customarily held at the house of the deceased himself, but at the house of the nearest relative,⁵³ who generally was the heir, and who was obliged to bury the dead.⁵⁴ The feast for those who died at the battle of Chaeronea was held

⁵¹ Πρακτικά, 1911, p. 155.

⁵² Artemidorus, *Oneirocritica*, V, 82.

⁵³ Demosthenes, *On the Crown*, 321.

⁵⁴ Demosthenes, *Macartatus*, 1069.

at the house of Demosthenes, who was regarded, according to his own words, as not the closest to each one, but the closest to all together.⁵⁵ This feast was probably a public feast such as that at the funeral of Patroclus, which was held at the tent of Achilles,⁵⁶ that of Hector held at the palace of Priam,⁵⁷ and that of Clytemnestra and Aegisthus, which Orestes gave "for the death of his hateful mother and cowardly Aegisthus."⁵⁸ In this last case it would seem the feast was given "the Argives" as an expression of thanks on the part of Orestes in having avenged his father's murder rather than as a thank-feast on the part of the dead for having been buried. Doubtless the custom in Homer's day already was followed quite uncritically, probably as Lucian says sportingly, "to break the fast."⁵⁹

As host of the feast the deceased had need of food and vessels. This accounts for many of the vases found in graves. Just how many it is hard to say, but perhaps one might include all for which no other purpose has been found. It seems the deceased was sometimes thought of as participating at the house where the feast took place, and this belief might often account for the absence of vases in graves; but more commonly he was thought of as participating from the grave or the lower world. The word *περίδειπνον* is explained etymologically as a feast held around the grave. Lucian describes a feast burnt at the grave.⁶⁰ Celebrating the *perideipnon* at the grave was a common practice in early Christian times.⁶¹ That the deceased was thought to participate from the grave is indicated by vases in a Mycenaean grave at Menidi found with definite marks of fire in and on them, showing that the deceased got his food "right from the hearth to the grave."⁶² Likewise, fire-marked vases were found in some Dipylon graves of children at Athens.⁶³ The fact that these were children's graves prevents the possibility that the vases might have been implements of profession in the

⁵⁵ Demosthenes, *On the Crown*, 321.

⁵⁶ *Iliad*, XXIII, 25 ff.

⁵⁷ *Iliad*, XXIV, 665, 802.

⁵⁸ *Odyssey*, III, 308.

⁵⁹ *Ath. Mitt.*, XVIII, 1893, p. 141, graves IX and X.

⁶⁰ Lucian, *De Luctu*, 24.

⁶¹ Lucian, *Charon*, 22.

⁶² Cf. Bruck, *op. cit.*, pp. 190 ff.

⁶³ *Ibid.*, p. 23.

graves of cooks, such as the carpenter's tools or medical tools found in graves of carpenters or doctors.

The women often depicted on lecythi bringing baskets of food and ointment to the grave are probably bringing the deceased his share of the feast.⁶⁴ At Athens two toy sacrificial baskets of terracotta were found in a grave.⁶⁵ At Olynthus a fragmentary wicker basket was actually found in a grave (grave 595). At Marion in Cyprus food and drink had been placed around the body but the tomb was not closed and the dromos not filled with earth so that offerings could be brought continually.⁶⁶ At other cemeteries the tombs were closed but offering pits were left where offerings could be brought: e.g. Dendra (Mycenaean),⁶⁷ Thera,⁶⁸ Athens,⁶⁹ Marathon.⁷⁰ While the pits at Marathon⁷¹ and Athens were large, evidently used for all burials, those at Thera were individual pits. Over shaft grave IV at Mycenae there was an altar (ἑρχάρα) with a hole through it to admit the offerings into the grave. At the tholoi at Orchomenus the altars stood beside the graves. Altars of a similar kind, but of a later period, were found at Rhodes (Geometric), Athens, Alexandria (Hellenistic), Carthage (Roman) and elsewhere.⁷² In several cemeteries small altars without holes through them were found over graves, as at Tanagra on Archaic and Classical graves,⁷³ and at Calatomilo, Rhodes, on Hellenistic graves.⁷⁴ Some of the earlier altars at Tanagra were probably for blood sacrifice but the later ones, as those in Rhodes, were probably to receive prepared foods, ointments, wreaths, flowers and the like.

⁶⁴ Aristophanes, *Lysistrata*, 610, 612 f.; the scholiast on 612; Isaeus, *Ciron*, 224 (9, 39); Aeschines, *Against Ctesiphon*, 77; Plautus, *Aul.*, II, 4, 45; Rohde, *Psyche*, I, p. 232.

⁶⁵ Buschor, *Grab eines Attischen Mädchens*, Munich, 1939, p. 21, fig. 15.

⁶⁶ *The Swedish Cyprus Expedition, 1927-1931*, 1935, p. 459.

⁶⁷ Persson, *The Royal Tombs at Dendra*, p. 68.

⁶⁸ Pfuhl in *Ath. Mitt.*, XXVIII, 1903, pp. 249 ff. and 273 ff.

⁶⁹ *A.J.A.*, XXXVII, 1933, p. 339.

⁷⁰ *Ath. Mitt.*, XVIII, 1893, pp. 46 ff.; Pausanias, I, 32, 3.

⁷¹ For the polyandrion at Marathon cf. *I. G.*, II², 1006.

⁷² Cf. Bruck, *op. cit.*, pp. 176 ff.

⁷³ *Ath. Mitt.*, XXVIII, 1903, pp. 331-337.

⁷⁴ *Clara Rhodes*, VI, 1932, pp. 170-178.

These altars and scenes depicting the offerings at graves show conclusively that offerings were brought to the graves in some places, but since these graves are closed and altars or tombstones are in place the offerings were not for the *perideipnon*, but for later rites. One might conclude, therefore, that in placing vessels in the graves the thought was mainly on the *perideipnon*, which was the first and most important of the feasts. At any rate, some of the vases would certainly be for this feast.

To speculate as to what each kind of vase contained is useless, since there probably was no standard menu. Some of the vases might have contained the *μελιποῦττα*, a cake made of meal and honey, which Aristophanes says was given with the dead to appease the hound of hell, Cerberus.⁷⁵ This may be a late interpretation of the use of honey-cake, probably invented by the poets, possibly by Aristophanes himself, the cake having been originally part of the funeral feast.⁷⁶

Baby feeders, or feeding bottles, are vases for a special use, that of feeding infants, but even so they were not always placed in the grave to be used for this purpose. They occur in graves dating from Helladic times⁷⁷ to Roman,⁷⁸ nearly always in graves of children. If the graves are those of adults, they are generally, if not always, graves of women. At Olynthus baby feeders were found in eleven graves, of which one (grave 343) was that of an adult, probably a woman. At Athens two were recently discovered in a fifth century grave of a woman, and near-by one in a child's grave, dating about 1000 B. C.⁷⁹ Many baby feeders show signs of wear at the ends of the spouts, indicating that they had actually been used.⁸⁰ They may have been placed in graves of infants to be used by them in the funeral feasts, but in the graves of larger children or adults they must have been offered for reasons of sentiment.

⁷⁵ *Lysistrata*, 601.

⁷⁶ Bruck, *op. cit.*, pp. 145 ff.

⁷⁷ *Brooklyn Museum Quarterly*, XXII, 1935, p. 109.

⁷⁸ For a general discussion of baby feeders and gutti cf. Snijder in *Mnemosyne*, series 3, I, 1934, pp. 34-60.

⁷⁹ *Hesperia*, VI, 1937, pp. 361 ff.

⁸⁰ E. g. *Hesperia*, VI, 1937, pp. 361-365.

Eggs were found in graves at various sites from Mycenaean⁸¹ to Roman times. Martin Nilsson has collected all instances of their occurrence in graves and of illustrations of sacrifices of eggs at tombs known to him in 1908.⁸² Others have been found since. At Olynthus only two eggs were noticed, but due to the nature of the soil, many might have disintegrated beyond recognition. One was a hen's egg in the grave of a child (grave 514) and the other an ostrich egg in the grave of an adult (grave 348). Eggs were also found at Rhodes,⁸³ Motya,⁸⁴ and Corinth.⁸⁵ Those at Motya had painted designs on them. Painted ostrich eggs were also found at Vulci in an Etruscan tomb⁸⁶ and at Tell Beit Mirsim in Palestine in the seventeenth and sixteenth centuries B. C.⁸⁷ The egg shells at Corinth (and probably also the others) were evidently whole when placed in the graves, with only holes in the ends through which the insides were removed from the shells. At Ialysus, Rhodes,⁸⁸ as at Thera⁸⁹ and elsewhere, eggs of stone and of terracotta have been found. These are cases of the use of surrogates, the shells or artificial eggs serving as well as the nutritive parts, since they were merely symbolical (since they served the soul and not the body).

The interpretation given to eggs in graves was that they were placed with the dead as symbols of resurrection into the life in the underworld, or as symbols of eternal life,⁹⁰ or because they

⁸¹ Persson, *op. cit.*, p. 68 (ostrich); Schliemann, *Ilios*, p. 430 (of stone); *Tiryns*, p. 174 (of stone).

⁸² Nilsson, "Das Ei im Totenkult der Alten" in *Archiv für Religionswissenschaft*, XI, 1908, pp. 530-546; cf. Bachofen, *Gräbersymbolik der Alten*, 2nd ed., pp. 1-297; *A.J.A.*, XXXII, 1928, p. 492; Robinson, *A.J.A.*, XXXIX, 1935, p. 228. Cf. also Küster, *Die Schlange in der griechischen Kunst und Religion*, 1913, p. 75, n. 2.

⁸³ E. g. *Clara Rhodos*, III, 1929, graves 91, 157, 233; IV, 1931, graves 31, 113 (end of the sixth to early fourth centuries B. C.).

⁸⁴ Whitaker, *Motya*, pp. 209 and 227 (ostrich eggs).

⁸⁵ *A.J.A.*, XXXII, 1928, p. 492; XXXIV, 1930, p. 426.

⁸⁶ Nilsson, *loc. cit.*, p. 532.

⁸⁷ Albright, "Tell Beit Mirsim" in *Annual of the American Schools of Oriental Research*, XVII, 1938, p. 83, no. 799; p. 91, no. 2349.

⁸⁸ *Clara Rhodos*, III, 1929, pp. 14, 252.

⁸⁹ Dragendorff, *Thera*, II, pp. 52 and 119.

⁹⁰ *A.J.A.*, XXXIV, 1930, p. 426.

were considered the nutriment of the *χθόνιοι*.⁹¹ The egg was the food of the chthonian gods, but possibly only in their capacity as fertility deities and not as gods of the underworld. There is evidence that Hades⁹² (who was the god-of-the-dead counterpart of Pluto) was not even worshipped with offerings (*ἐν οὐδεμῇ πόλει "Αΐδου βωμός ἐστιν. Αἰσχύλος φησὶν "μόνος θεῶν γὰρ Θάνατος οὐ δάρων ἔρῃ"*).⁹³

The interpretation of the egg as a symbol of eternal life is possible. In Plutarch's *Symposiacs*⁹⁴ where the eternal question of "which was first, the bird or the egg" is the topic of discussion there is no definite idea why Orphics and Pythagoreans forbade the eating of eggs. The Orphics forbade the eating, or even touching, of eggs and beans because "putatur ad mortuos pertinere," as Festus says.⁹⁵ Possibly the egg symbolized the birth into a new life in the underworld, for according to the Orphics, mythological personages, especially Phanes⁹⁶ (Eros as he is called by Aristophanes) or Ericapaeus, were born from eggs. And in most cosmogonies the world itself was born from an egg.⁹⁷ Sometimes the grave stelae depicted on vases, especially Athenian white ground lecythi, are egg-shaped, standing with the thin end up on a base of one or more steps, and usually about the size of an adult person.⁹⁸ These stelae, and possibly the omphali,⁹⁹ would then be symbolical of the birth into a new life. Possibly some seeds (too fragile to tell what kind) found in a grave at Olynthus (grave 577) had similar significance.

So far as most of the evidence goes, eggs were placed in graves as nourishment for the deceased, i. e. as part of the *perideipnon* and subsequent feasts, reminding one of Horace's "Ab ovo usque

⁹¹ *Clara Rhodos*, III, 1929, p. 13.

⁹² Rohde, *Psyche*, I, pp. 208 ff.

⁹³ Aeschylus, frag. 161; scholiast on *Iliad*, IX, 158.

⁹⁴ Plutarch, *Symposiacs*, II, 3 (636 A).

⁹⁵ Festus, s. v. *Fabam*; cf. Lobeck, *Aglaophamus*, 1829, p. 254, note k; Rohde, *Psyche*, II, p. 126. Many of the references are to very late authors.

⁹⁶ Cf. Roscher, *Lexicon*, III², pp. 2250-2271; A. B. Cook, *Zeus*, II, fig. 907.

⁹⁷ Cf. M. Nilsson, *A History of Greek Religion*, pp. 215 f.

⁹⁸ E. g. Arthur Fairbanks, *Athenian White Lecythoi*, in *University of Michigan Studies*, VI, Pl. VIII; VII, Pl. XXII; *Hesperia*, VI, 1937, p. 364, fig. 25.

⁹⁹ Omphali of stone were actually found over graves, cf. *Arch. Anz.*, LIII, 1938, p. 494.

ad mala." On a number of vase scenes and Etruscan tomb paintings men and women, evidently in the underworld, are eating, or are about to eat, eggs.¹⁰⁰ They are arranged around tables or are carrying food baskets, or only an egg or two, or an egg and a bird, etc., depending on the limit of space to be decorated. At Corinth the eggs were found generally in or near scyphi,¹⁰¹ and in the polyandron of the Thespians many egg shells were found in vases.¹⁰² If these locations are not accidental it would seem to indicate that eggs were objects of food. If eggs belonged to the dead and were eaten by them, their symbolism is probably mixed: eggs are the food of the dead, eaten by them at the funeral feasts, because they are the food of the chthonian deities. They are the food of the chthonian deities because they represent the productive power. Because of their productive power they symbolize resurrection into a new life in Hades.

Lamps were also found in graves dating from Helladic to Roman times.¹⁰³ They occurred least often in the Classical Age and by far the most often in the Roman Age. Among a group of skeletons of the fourth century A. D., 162 lamps were found. Only two lamps were found in Olynthian graves, both graves of adults. In addition "cothons," if they are lamps,¹⁰⁴ were found with eight burials, four of adults and four of children.

Wace suggests that "possibly the lamps were connected with the rites of the dead, although they may have been intended to give the dead light in the underworld."¹⁰⁵ The early picture of Hades

¹⁰⁰ Nilsson, "Das Ei im Totenkult der Alten" (as cited in note 82), pp. 541 ff. Cf. *C.V.A., Robinson Coll.*, fasc. 3, p. 17, Pl. VIII, 2 (probably fruit or a ball and not an egg). On many Pompeian house-shrines eggs and pine-cones are offered to the serpents, cf. *Memoirs of the American Academy in Rome*, XIV, 1937, Pl. XV, 2; XVI, 1; XVIII, 1; XXII, 1 and 3; XXIV, 2; XXVI, 1; *A.J.A.*, XLVI, 1942, pp. 13, 20. But these house altars are hardly connected with the cult of the dead. There the eggs are offered to the serpents as guardians of the house (*genii loci*).

¹⁰¹ *A.J.A.*, XXXII, 1928, p. 492; XXXIV, 1930, p. 426.

¹⁰² *Πρακτικά*, 1911, p. 155.

¹⁰³ Cf. *J.H.S.*, XXXI, 1911, pp. 73-99, especially p. 89, notes 119-124 (references).

¹⁰⁴ *J.H.S.*, XXXI, 1911, pp. 73-99; *Εφημερίς*, 1937, pp. 258-262.

¹⁰⁵ Wace, *The Chamber Tombs at Mycenae*, p. 142.

was a gloomy one indeed, if Homer gives the common conception of it, but there is no thought of the need of a lamp. However, since in Mycenaean times the funerals took place in chamber tombs, which were definitely very dark, especially if burial took place early in the morning, as it seems to have done in later times, lamps were a practical necessity in the rites. After the funeral the lamps were often left in the graves. Once lamps were left in the graves, it became a custom; and once a custom, an explanation was found for it. Whether this explanation was found in early days, as soon as chamber tombs were replaced by open ones, or even before that time, or whether it was not until late Greek or Roman days it is difficult to say. If burial took place before sunrise, lamps would still be needful in open type graves; but when 162 lamps, or any large quantity, are found together there must be some religious meaning. Lamps, like eggs, are objects into which mystic meanings can easily be read.

The case for terracotta figurines is no clearer than that for lamps and for eggs. Votive offerings or toys have been suggested as their reason for being in the graves. Blegen thinks of the Mycenaean figurines that those of women may be nurses to the children in the underworld and the animals provide the milk; or they may be play-things, he adds.¹⁰⁶ The graves of Olynthus do not add much to our previous knowledge of the subject.

More than 227 terracottas were found in sixty of the 600 graves, eleven of which were graves of adults, forty-four of children and five uncertain. They were most numerous in wooden coffins and unprotected burials, sometimes accompanying unprotected burials of children in considerable quantities. Many of them (those found in 1928 and 1931) are published in *Excavations at Olynthus*, Parts IV and VII, where it will be noticed there is no difference whatever between the figurines found in the graves and those found in the houses.

The fact that practically every type of figurine found in the houses was also found in the graves shows definitely that they were not made especially for graves. Pottier and Reinach remark that

¹⁰⁶ Blegen, *Prosymna*, p. 256.

often in one grave at Myrina the figurines were of the same fabric and style, as if they had been bought in the same shop to be used in the funeral rites.¹⁰⁷ The same similarity of style and fabric was noticed at Olynthus, a number of figurines very often having been made from the same mould; but the examples were quite thoroughly scattered throughout the city as well as in various graves, so that it is impossible to tell whether any figurines at all were bought expressly for funerals. There is more evidence that vases were bought for the funeral than terracotta figurines (cf. pp. 177, 184, 185).

Most of the terracotta figurines were found in graves of children, and they were generally quite appropriate to the age of the deceased in whose grave they occurred. Only in two graves of adults were figurines found which might be considered appropriate to children, two satyrs in one and a boy with an astragalus in the other. But children's graves often contained figurines of adult persons or deities. This seems to have been the usual history of terracottas from the Mycenaean Age on. Wace notes that at Mycenae they "frequently, if not regularly, are part of the funeral furniture of children's graves,"¹⁰⁸ and Blegen found them nearly always in graves of children at the site of the Argive Heraeum.¹⁰⁹ At Myrina they are perhaps often, but not always, appropriate to the age and sex of the deceased.¹¹⁰ But they were also found in the polyandron of the Thespians, where no child skeletons were noticed.¹¹¹

Were these figurines play-things and toys? The animals and comic figures could have been toys found in the houses, where children had played with them, and in the graves, where they were placed when children died. Even figurines of adult persons and deities could have been toys, but the archaic terracotta masks and busts could not have been. Many of them were made in such good

¹⁰⁷ *Myrina*, p. 108.

¹⁰⁸ Wace, *The Chamber Tombs at Mycenae*, p. 141.

¹⁰⁹ Blegen, *Prosymna*, pp. 256, 365, 366.

¹¹⁰ Pottier et Reinach, *La Nécropole de Myrina*, p. 108; Dorothy Burr, *Terra Cottas from Myrina*, p. 6.

¹¹¹ *Πρακτικά*, 1911, p. 155.

archaic style that they had been dated too early until it was discovered that some of them occurred in graves which could not have been earlier than the fourth century. It was even thought that old moulds were used in making them. Such ancient formalism points to some religious significance. A similar archaic formalism was noticed in Mycenaean figurines, eyes pinched in and nose pinched out in one operation. Of course one must not forget that toys of all ages have an archaic quality which gives them a somewhat religious formality. But that quality is generally due to a cheapness of manufacture, which cannot be ascribed to the Olynthian archaistic masks. They were made for a definite purpose. They have a rim with a flat edge on back and several holes in the top, indicating that they were made to be hung on the wall. There were no walls in Olynthian graves on which to hang objects. Since, then, they were so frequently found in the houses, it is evident that they were not made for graves at all, but for some everyday purpose in the homes. Some objects, such as the terracotta arms found in the Cerameicus at Athens¹¹² and similar ones of Minoan date found near Phaestus in Crete,¹¹³ may have been votive objects. The arms with open hands are much too formal to have belonged to dolls, nor were they found in pairs; but most of the terracottas found in graves must be regarded as objects of sentiment rather than objects of ceremony.

Among the terracottas were some of a boy seated on the ground playing with astragali or leaning against a large astragalus.¹¹⁴ What was their significance? Were they boys with play-things or did they have some other meaning? There are some indications that astragali had apotropaic or oracular significance;¹¹⁵ and they are frequently connected with the grave. Polygnotus painted Camiro and Clytië playing with astragali in Hades in his famous

¹¹² *Arch. Anz.*, L, 1935, p. 271, fig. 6.

¹¹³ *Mon. Ant.*, XIV, 1904, p. 737, fig. 36.

¹¹⁴ Cf. *Olynthus*, IV, no. 418; VII, no. 282. Other illustrations will appear in forthcoming publications.

¹¹⁵ *Not. Scav.*, VIII, 1911, Supplement, p. 25, note 1. Vases were made in the form of astragali, cf. *C.V.A., Robinson Collection*, fasc. 3, p. 43, Pl. XXXI, 7; *Journal of the Walters Art Gallery*, II, 1939, pp. 112-113 (a psyter with handles shaped like knuckle-bones). Cf. Pollux, VI, 99.

painting, *Nekyia*, in the Lesche at Delphi.¹¹⁶ At Olynthus about a thousand astragali were found in forty-one graves, thirty-three of children and eight of adults, two of which were rather small. Some graves contained large numbers of astragali, one grave (grave 233) having 190. This high number was even surpassed by a grave at Myrina (grave 27), where 230 astragali were found.¹¹⁷ Piles of astragali were found in the polyandron of the Thespians,¹¹⁸ who died in 424 B. C. It may be noteworthy that very few astragali were discovered in the houses at Olynthus. Whatever oracular significance they may have had it is well known that astragali were very common play-things among the Greeks, not only among the children, but also among adults, especially young folks.¹¹⁹ Since Greece has always produced a large quantity of sheep and goats, astragali naturally held an intimate place in the lives of the people. And since they were used in games of chance and were obtained from animals used in divining the future, a belief in their oracular power follows logically enough, though there is no reason to conclude that they were placed in graves for this reason. Anything very abundant in the land and closely connected with the every-day life of the people finds its way into the graves. Occasionally artificial astragali were made of terracotta or lead,¹²⁰ but anything as readily obtained as astragali is not easily replaced by substitutes.

Sea shells were also abundant in Greece, and were found generally in graves of children. Only three were found at Olynthus, all in children's graves (graves 327, 462, 514). Sea shells have been found perforated and worn as necklaces,¹²¹ but they were so few in comparison that their use as adornment could not have

¹¹⁶ Pausanias, X, 30, 2.

¹¹⁷ Pottier et Reinach, *La Nécropole de Myrina*, p. 215.

¹¹⁸ Πρακτικά, 1911, p. 157.

¹¹⁹ Cf. Pottier et Reinach, *La Nécropole de Myrina*, pp. 215-221; Pollux, VII, 204, 206; IX, 95, 96, 100, 101, 126; Aristotle, *Problems*, XVI, 3; Plato, *Lysis*, 206 e; Scholiast on same; Pausanias, VI, 247; X, 30, 2; Eustathius (on *Iliad*, XXIII, 87), 1289, 56; 1397, 35; Lucian, *Amores*, XVI; Hesychius, s. v. Midas, Magnes, Peitho, etc. Cf. also *Arch. Anz.*, XLI, 1929, pp. 272 f.; *A.J.A.*, XXXVI, 1932, p. 126; Bruck, *op. cit.*, pp. 126-127.

¹²⁰ Cf. Robinson, *Olynthus*, X, pp. 502-504 and the many references cited there.

¹²¹ Kinch, *Vroulia*, pp. 47 f., children's graves.

been primary. They may have been ex voto offerings,¹²² or they may have had apotropaic meaning. Probably their significance was not unlike that of eggs. If the Greeks pictured the world or various mythological characters born of eggs, they also pictured, even more frequently, characters born of sea shells, or from the sea itself. This is illustrated by many plastic vases of Aphrodite or other characters emerging from bivalves and by the reliefs and paintings as well as the stories about Aphrodite born from the sea, or the sea foam.¹²³

That anything abundant in the land finds its way into the grave is further demonstrated by the tools of trade, the objects with which each individual made his living, such as fish-hooks, carpenter's tools, implements of war and the like. There may have been a time when these things were believed necessary to the life in the world beyond the grave, but if there was, it was farther back than any trace we have in Greek history. When a class of objects is found in only a small percentage of burials there can have been very little or no superstition connected with it; and even if the percentage is fairly high in the graves of the upper classes of people, if the objects are objects of utility, such as tools¹²⁴ and garments, they are probably nothing more than objects of respect.

With democratic developments, weapons of war became a less dominant factor of life.¹²⁵ With legal curtailments and all the wealth and the estate of the deceased belonging to the family and the women forbidden to bury above three pieces of dress with the corpse and a restriction on mourning, weapons less often occur in graves.¹²⁶ At Olynthus only two weapons of war were found.

¹²² A. Mosso, *Le origini della Civiltà Mediterranea*, p. 36.

¹²³ Cf. Maria Bratschkova (Brickoff), "The Mussel in Ancient Art," *Bull. de l'Inst. Arch. Bulgare*, XII, pp. 1-131, where it was noted that sea shells first occurred in connection with the birth of Aphrodite. Cf. also Maria Brickoff, "Aphrodite nella Conchiglia," *Bollettino d'Arte*, IX, 1930, pp. 563-569 and references in Robinson, *Olynthus*, V, pp. 124-125.

¹²⁴ E. g. at Rhodes where the custom was quite prevalent. Cf. *Clara Rhodes*, IV, 1931, p. 18 and graves 7, 10, 30, 81, 117, etc.

¹²⁵ Thuc., I, 5, 6.

¹²⁶ Plutarch, *Solon*, 21; *Laws of Gortyn*, col. III, line 37 (Buck, *Introduction to the Study of the Greek Dialects*, 1928, pp. 266-267).

They were in multiple burials (p. 164), which probably were graves of war casualties, since these were the only war implements found in the graves. The grave of the Macedonians who fell at Chaeronea in 338 B. C. contained quite a number of weapons—spears, swords and knives.¹²⁷ Armor and clothing were buried or burnt with the dead definitely as an honor to him from the time of Homer to Lucian. Achilles burnt Eëtion with his armor,

. . . σεβάσσατο γὰρ τό γε θυμῷ,
ἀλλ' ἄρα μιν κατέκησεν ὅν τεσι δαιδαλέουσιν.¹²⁸

Hecuba will burn Hector's garments with him "to be an honor unto thee from the men and women of Troy."¹²⁹

ἀτὰρ τοι εἶματ' ἐνὶ μεγάροισι κέονται
λεπτά τε καὶ χαρίεντα, τετυγμένα χερσὶ γυναικῶν.
ἀλλ' ἦ τοι τάδε πάντα καταφλέξω πυρὶ κηλέω,
οὐδὲν σοί γ' ὄφελος, ἐπεὶ οὐκ ἐγκείσεαι αὐτοῖς,
ἀλλὰ πρὸς Τρώων καὶ Τρωϊάδων κλέος εἶναι.

The account of the cremation of Patroclus shows to what ends men would go to honor a fallen comrade.¹³⁰ Alpenor asks to be buried in his armor;¹³¹ and his wish is granted.¹³² Ajax also wants his armor buried with him.¹³³ In early Greece it was an honor for a warrior to be buried with his arms as it was to die with them; a man who laid down his shield and fled would not be buried with it.

In later Greek days nothing is said about burying armor; prized garments take their place, and occasionally restrictive laws were necessary. An inscription from Ceos directs that the dead be wrapped in three white cloths, the total worth not to exceed 100 drachmas.¹³⁴ "It is the custom among the Messenians to bury the most illustrious persons crowned and wrapped in white garments," says Pausanias.¹³⁵ Evidently the custom for the common folk was somewhat more simple. Lycurgus made laws prohibiting

¹²⁷ *Ath. Mitt.*, XXVIII, 1903, p. 303.

¹²⁸ *Iliad*, VI, 417 f.

¹²⁹ *Iliad*, XXII, 510-514.

¹³⁰ *Iliad*, XXIII, 127 ff.

¹³¹ *Odyssey*, XI, 74.

¹³² *Odyssey*, XII, 13.

¹³³ Sophocles, *Ajax*, 577.

¹³⁴ Koehler in *Ath. Mitt.*, I, 1876, p. 140.

¹³⁵ Pausanias, IV, 13, 3.

anything to be buried with Spartans, "They simply covered the body with a scarlet robe and olive leaves when they laid it away."¹³⁶ According to Orphics and Pythagoreans the dead must wear linen, not woolen, clothing.¹³⁷ Lucian laments the custom of burying with the dead the garments most esteemed in life,¹³⁸ and sportingly suggests that the dead are dressed in magnificent garments not to take cold or to appear naked before Cerberus.¹³⁹ That it was only a custom to honor the dead and not a question of theology he indicates when he says that some leave instructions that the cloths be burnt with them which they prized in life, others that servants stay in their tombs.¹⁴⁰ Juvenal says that he who had a toga wore it.¹⁴¹

That clothing was worn by the dead is well attested from Mycenaean to Roman times by buckles, jewelry and other imperishable material worn on clothing. Shoes and other articles of clothing in various stages of disintegration have actually been found in graves, especially in South Russia and in Egypt, where they were better preserved than in most places.¹⁴² At Olynthus a very fragile piece of cloth was seen in one grave (grave 595), where it had been preserved by a wicker basket (also very fragile) which was set on it. At Capua an ash-urn in an Etruscan grave was wrapped in linen.¹⁴³

The wreaths given by friends and relatives with which the dead were crowned and which were as often hung on tomb-stones, especially on anniversaries of the death or the burial,¹⁴⁴ had a significance not unlike that of weapons, prized garments, or other treasured objects.¹⁴⁵ The custom has probably come down to us

¹³⁶ Plutarch, *Lycurgus*, 27.

¹³⁷ Herodotus, II, 81.

¹³⁸ Lucian, *The Wisdom of Nigrinus*, 36.

¹³⁹ Lucian, *De Luctu*, 11.

¹⁴⁰ Lucian, *The Wisdom of Nigrinus*, 30.

¹⁴¹ Juvenal, III, 171-172.

¹⁴² Watzinger, *Griechische Holzsarkophage*, pp. 3, 6, 13, 20.

¹⁴³ Weege, *Etruskische Malerei*, p. 26.

¹⁴⁴ *I. G.*, II², 1006, ll. 26, 69 (Marathon) but the custom was also carried out privately.

¹⁴⁵ For the custom cf. Aristophanes, *Ecclesiazusae*, 538; *Lysistrata*, 602 and the

unchanged. These wreaths were generally of myrtle or parsley, but also frequently made of gold or gilded bronze, as the one found at Olynthus (grave 72). In Hellenistic times cinerary urns were sometimes decorated with wreaths painted on them,¹⁴⁶ and chamber tombs had wreaths and armor painted on the walls as if they were hung on pegs.¹⁴⁷

Strigils probably had a similar but deeper meaning than wreaths. They are very often represented on grave stelae and on lecythi depicting funeral subjects as well as in various gymnastic scenes. They are associated with many youth and athletic sports. In graves they were found in all parts of Greece, sometimes in large numbers. At Olynthus no burial had more than four, but at Corinth one boy had ten.¹⁴⁸ They occur in graves of men and boys, but seldom in graves of women and infants. Fifty-nine were found at Olynthus in 50 burials, 32 adults and 15 children, and three the ages of which were unknown. None were found at Motya, though the Punic cemeteries there were quite typically Greek and contained many Greek vases and other objects. The reason for this absence of strigils is probably the less athletic nature of the Carthaginians. The poros-slab graves at Aegina¹⁴⁹ and the polyandrion of 338 B. C. at Chaeronea¹⁵⁰ contained almost one strigil for each person, and comparatively few other objects. The bards tell of magnificent festive days and funeral games held in honor of the dead back in Heroic Times. This practice, or the tradition and memory of it, was carried down through the ages to some extent. The strigil, and probably the wreath, signified the deceased's part in the events.

One hundred and thirty-six coins were found in 66 burials at Olynthus and 30 more were found sporadically, making a total of 166 coins from the cemeteries. Forty-five of the burials were

scholiast; Plutarch, *Timoleon*, 26; Lucian, *De Luctu*, 11; and further, Rohde, *Psyche*, I, p. 220, note 2.

¹⁴⁶ Breccia, *La Necropole di Sciatbi*, II, Pls. 37 ff. One hydria (no. 47, Pl. 37) had a bronze wreath around it which was imitated in paint on the others.

¹⁴⁷ Cf. above, pp. 119-120 and *Arch. Anz.*, LIII, 1938, pp. 495 ff.

¹⁴⁸ *A.J.A.*, XXXII, 1928, p. 493.

¹⁴⁹ *Arch. Anz.*, LIII, 1938, p. 33.

¹⁵⁰ *Ath. Mitt.*, XXVIII, 1903, p. 304.

adults and 21 were children. The coins were generally but not always placed in the mouth, each person having from one to four coins. The number was generally one or four, least often three. Most of them were small bronze coins of various values but a few silver coins were also among them. They were not all local coins, fourteen sources being represented. The sources were Olynthus, both Chalcidian and Bottiaean, Scione, Potidaea, Acanthus, Sicyon, Terone, Abydus, Sciathus, Amphipolis, Thebes, Olophyxus, Heraclaea Trachinia, Amyntas III, and Philip II. They date from the last quarter of the fifth century B. C. to the middle of the fourth. Not more than three coins date from the fifth century and only three could be later than 348 B. C., but none are necessarily later than that date. The latest coin in the graves is that of Philip II, which cannot date before 359 B. C.

The money was placed in the mouths of the dead as fare (ναῦλον) for Charon, who ferries the souls across the Acherousian Lake into Hades.¹⁵¹ ἐπειδὴν τις ἀποθάνῃ τῶν οἰκείων, πρῶτα μὲν φέροντες ὄβολον ἐς τὸ στόμα κατέθηκαν αὐτῷ, μισθὸν τῷ πορθμεί τῆς ναυτιλίας γενησόμενον, οὐ πρότερον ἐξετάσαντες ὅποιον τὸ νόμισμα νομίζεται καὶ διαχωρεῖ παρὰ τοῖς κάτω, καὶ εἰ δύναται παρ' ἐκείνους Ἀττικὸς ἢ Μακεδονικὸς ἢ Αἰγιναιὸς ὄβολός, οὐδ' ὅτι πολλὸν κάλλιον ἦν μὴ ἔχειν τὰ πορθμεία καταβαλεῖν. οὕτω γὰρ ἂν οὐ παραδεξαμένον τοῦ πορθμείως ἀναπόμπιμοι πάλιν ἐς τὸν βίον ἀφικνοῦντο. The scholiast on Aristophanes, *Lysistrata*, 601 says "The honey-cake was given to the corpses for Cerberus as the obol was for the ferryman and the crown for those who had won a prize in life." Aristophanes himself has Heracles tell Dionysus he will have to pay two obols, one for his servant, Xanthias to cross the lake.¹⁵² Lucian has a story that a shade who was left on shore because Charon's boat was loaded to capacity complained that since he had the fare Charon was disobeying the law of Rhadamanthys by not taking him.¹⁵³ Strabo says the people of Hermione did not place the fare with the dead because they

¹⁵¹ Lucian, *De Luctu*, 10; Paus., X, 28, 2. Cf. also Rohde, *Psyche*, I, p. 306, note 3; Pherecrates, frag. 81 (Th. Kock, *Comicorum Atticorum Fragmenta*, I, Leipzig, 1880, p. 168); Dümmler, *Kleine Schriften*, II, 1901, p. 263; Bruck, *Schenkung auf den Todesfall*, 1909, p. 10, note; Bruck, *Totenteil und Seelgerät im griechischen Recht*, p. 145.

¹⁵² Aristophanes, *Frogs*, 140.

¹⁵³ Lucian, *Cataplus*, 18.

lived so close to Hades.¹⁵⁴ The same is true of the people of Aegialus.¹⁵⁵ At Hermione a defile in the precinct of Pluto behind the temple of Chthonia, from which Heracles is supposed to have brought Cerberus to the outer world, was thought to be close to Hades. In fact, a lake in the gorge was called "Lake Acheron."¹⁵⁶ The idea of a ferry to be crossed in the next world is as early as Aeschylus, *Agamemnon*, 1557-1558, πρὸς ὠκύπορον πόρθμευμ' ἀχέων, a kind of "bridge of sighs." The idea is frequent in later literature. Robert Herrick, for example, in *The New Charon* says: "Charon, O Charon, draw thy Boat to th' Shore," and in *Charon and Phylomel*: "o'er the Stygian Lake," and in *To Enjoy the Time*: "Passe all we must the fatall Ferry." The idea of paying a fare is evidently late in Greek religion. Samter thinks money was first placed in graves to remind the dead to spare the rest and was later interpreted as Charon's fare.¹⁵⁷ The parallels he gives from Germany are, however, of later date. The custom of placing coins in graves obviously cannot be earlier than the invention of coinage. Some look to the gold discs in Mycenaean graves as predecessors, but there is no evidence that they were used for the same purpose, nor even that they were used for money. There is no indication in Homer of anything being placed in the mouth of the dead,¹⁵⁸ nor of anything being placed in the grave to buy off the dead. The oldest coins found in graves are the "fish coins" held in the hands and scattered about the graves at Olbia (if they are coins) of about the end of the seventh and the first half of the sixth centuries B. C.¹⁵⁹ There were no coins found in the Dipylon graves at Athens, none in the archaic graves at Rhodes, none at Motya, except a few in the latest graves,¹⁶⁰ fifth century or later, and only a few at other sites in Sicily in the latest graves.

¹⁵⁴ Strabo, VIII, 373.

¹⁵⁵ Callimachus, *Fragments*, 110.

¹⁵⁶ Cf. Rohde, *Psyche*, I, p. 214.

¹⁵⁷ *Neue Jahrbücher*, XIX, 1907, pp. 134 ff.

¹⁵⁸ Cf. *ibid.*, and Rohde, *Psyche*, I, p. 306.

¹⁵⁹ Minns, *op. cit.*, p. 453.

¹⁶⁰ For the Dipylon cf. *Ath. Mitt.*, XVIII, 1893, pp. 187, 188; for Sicily (third cent. B. C.) *Not. Scav.*, V, 1897, p. 477; IV, 1907, p. 747. Whitaker, *Motya*, pp. 213, 258.

Bruck thinks the idea of coins as Charon's fare began in the fourth century B. C., and even then occurred seldom until the third century.¹⁶¹ Literature does not trace the date of the tradition of paying a fare to Charon farther back than quite late in the fifth century, though there is no indication of novelty in Aristophanes's references to the subject. Nor does he indicate that coins were placed in the graves for this purpose, he merely alludes to a myth. Since, then, a few coins were found in early graves, early after the coinage of money, but not many until late in the fifth century, and since the early coins were not found in the mouths, it seems probable that the early coins were only to show tendance from the friends of the dead and had nothing to do with Charon's fare. When the money was in the mouth the custom is fairly certain; the mouth was sometimes used as a pocket-book, as among the Chinese. The custom was more widely practiced in Roman times than in the earlier period. Occasionally the Romans even made imprints of coins on gold leaf instead of placing the actual coins in graves.¹⁶² The Greeks were rather lax in their practice of the custom. At Olynthus only 66 out of 644 burials (10.26%) contained coins. In few places does the percentage run higher. There was, furthermore, a variance in price and in the number of coins placed in each grave. Literature mentions only an obol, but archaeology reveals also other amounts. However, the fact that the number at Olynthus never ran over four coins points to some definite figure for the fare. But perhaps four coins, a number not found by other excavators, point to a possible idea of better accommodations on Charon's bark than those with a single coin could expect. But how about those with not a single coin? Did they swim the Acherousian Lake or the Styx or did they work their way across? They could hardly have been sent back to Olynthus to live again, as Lucian suggests. The money was not necessarily placed in the mouth. We have noticed above that some coins had other locations in the graves, many of which were apparently thrown in, as the grave was being closed. Whether these were intended for Charon or were just thrown in as a last

¹⁶¹ Bruck, *op. cit.*, p. 145 and note.

¹⁶² *Hesperia*, VI, 1937, p. 363.

respect to the deceased is an open question. In a grave at Camarina in Sicily the skeleton held a coin and an iron nail in his left hand.¹⁶³ A scene on an Athenian lecythus also shows the dead holding the coin in his fingers.¹⁶⁴ But again there is no proof that they are fare, except the analogy from the burials containing coins in the mouths.

The excavations of the cemeteries of Olynthus, like the excavations of the city of Olynthus, give a good cross section of the whole life in an ancient Greek city. While the graves have not all been found, the probability is strong that all the cemeteries, at least all that have any material importance, have been found. It is safe to say that representative graves from the poorest to the richest have been uncovered, and graves from the most pious to the least god-fearing. Olynthus must have had slaves as did other cities, but, like other cemeteries, no grave could be detected as that of a slave. The inference is that slaves were buried among the freemen, and in like fashion and with the same rites. Rich and poor, master and slave, had essentially the same customs. The rich, of course, had more expensive burials, more fine jewelry, and more costly tombs, but there was no indication that they enjoyed some custom to gain greater blessings in Hades which the poor could not also use. On the other hand, there was no indication that the poor were any more superstitious than the rich, or the rustic than the more enlightened. Funeral customs were free and open to variations, and were loosely interpreted. This is to be expected of a people who, though profoundly religious, had no precise creed. Since the customs were so far from universally followed, they clearly were not considered essential for a blessed life in the after world. As examples of this we have the facts that only 66 out of 644 of the persons buried there paid their fare across the Styx and that only 354 of the 644 had anything at all in their graves, only fifty-five per cent.

In considering the whole field of Greek cemeteries we notice

¹⁶³ *Mon. Ant.*, IX, 1899, p. 256, grave 5.

¹⁶⁴ Pottier, *Étude sur les lécythes blancs Attiques à Représentations funéraires*, Paris, 1883, p. 49.

that the funeral customs were Pan-Hellenic. There were local differences, determined in part by the materials available, in part by financial conditions, in part by past history, for many localities retained customs essentially unchanged for centuries of time while newer cities adopted newer modes, and in part by external influences, noticeable especially in outlying districts where customs of neighboring nations made impressions; but on the whole no fundamental difference can be noticed from one end of the Hellenic world to the other. The motives underlying the customs were also essentially the same from at least as early as Homer to the Roman era, and they were essentially practical; but the actual mode of interment was readily changed.

APPENDIX

REPORT ON SKELETONS EXCAVATED
AT OLYNTHUS

BY

JOHN LAWRENCE ANGEL

APPENDIX

CLASSICAL OLYNTHIANS

Introduction

The opportunity to study the physical remains of ancient inhabitants of Olynthus was given to the author by Dr. David M. Robinson, through whose generous help this investigator was able to study over one hundred burials excavated by Dr. Robinson in the Riverside Cemetery at Olynthus in May and June of the season of 1938. The author wishes to thank Dr. Robinson further for the opportunity to publish this report. For the use of comparative material from both the Greek mainland, Carniola, and Etruria thanks are due also to the many other archaeologists who have allowed the author to measure skeletons excavated by them, to Professor J. Koumaris, curator of the Greek Anthropological Museum, to Dr. A. L. Kroeber and Mr. E. W. Gifford of the University of California, and especially to Dr. E. A. Hooton, H. O'N. Hencken, and the rest of the staff of the Peabody Museum and department of Anthropology at Harvard.

The material consists of nine whole or partial skulls which the author was able to reconstruct, measure, and photograph in the field. These are at present in the Greek Anthropological Museum at Goudi, Athens, while four more skulls still await reconstruction in the storage rooms of the Agora Excavations at Athens. Only five of the nine skulls are at all complete, four of these being males. Almost all of them were badly warped *post mortem*, were soft, and usually broken into one hundred or more fragments through pressure and soaking in the sandy loam of the cemetery. In their restoration a polyvinyl acetate, Alvar, was used both to impregnate the bone and to glue together the fragments. By using great care it was possible to counteract many of the effects of warping, since the slowness of hardening of Alvar dissolved in acetone allowed the lining up of all sagittal points of the cranium in a

single sagittal plane. Nevertheless the cranial measurements are less certain than they would be on a macerated skull.

The technique of measuring is that practiced at the Harvard Anthropological Laboratory under Dr. E. A. Hooton, and the cranial diameters therefore conform to those defined by Martin, 1928. Auricular height was measured from the Frankfort plane to vertex rather than to apex. In a group of 111 males from Mediterranean and Alpine regions this measurement exceeded the direct apex height by .90 mm., and the auricular-bregmatic height by 1.46 mm.¹ Horizontal circumference was measured above the brow ridges. Nose height was taken as the average of the two diameters from nasion to the lower borders of the aperture on each side, instead of to a non-existent nasospinale. Orbital breadths and the interorbital diameter were taken from the dacrya. And prosthion was taken as the lowest point between the upper median incisors in upper face height, and as the most anterior point in other measurements. Facial angles were measured with the skull fixed in the Frankfort plane.

At least four photographs of each skull were taken by the investigator on 35 mm. film. These were later enlarged and mounted on cards, and thus they enabled the quick comparison of the whole body of material examined in Greece and its subdivision into physical "types" in a manner otherwise impossible in the field when each site-group of crania has to be examined separately. Twenty-three types can be distinguished as minor subdivisions of six basic types apparent in Greece² from about 3000 B. C. to 1300 A. D. And the six main types distinguished subjectively have been confirmed statistically as having far greater metric homogeneity than either the total series of about 250 males or any one of the period or site subgroups which have rather high variabilities.³ They also, of course, show significant metric and morphological differences from the total series and tend to resemble other racial groups outside of Greece more closely than they resemble

¹ Cf. Howells, 1941.

² Mainly Attica, Corinth, Argolis and Cephallenia.

³ See mean coefficients of variation (V) and mean standard deviations (σ) in Tables II and III.

the total Greek series. Deviations from the total series exceed three times their probable errors in an average of 21.4% of cases in forty-four measurements, and in 24.1% of sixteen indices used, as contrasted with the 4% of the deviations of this magnitude ("significant" deviations) which might be expected if the type groups were no more definite than chance selections from the total series. But, since the type groups were not selected by chance, this higher percentage of deviations is logically to be expected, and thus gives simply a rough measure of the accuracy of the investigator's selective eye.

Having taken on an arbitrary reality these "types" form a useful background for discussion of the skulls from Olynthus and can be briefly outlined here and in Table II. Type A is a basic and rather coarse form of long-headed white man closer to the "Megalithic" of Coon, or Atlanto-Mediterranean of Deniker, than to any other type. It is dominant in the Early and Late Bronze Age, in the Submycenaean of Cephallenia but not of more eastern Greece, and seems basic in the modern population. Type B is the small, somewhat infantile, long-headed Mediterranean: the gracile extreme of Sergi's Eurafrian group. Like type A it is common during the Mycenaean period, though rare in the Middle Bronze Age, but it is also common in Classical and Byzantine periods. Type D, also long-headed, can be called Mixed Nordic, or Ancestral Nordic: in addition to the "Corded" and "Hallstatt Nordic" of Coon it includes a convex-nosed Mediterranean which in most respects should be called Iranian. Its averages are very similar to those of Bavarian Reihengräber, and it occurs most frequently in the Middle Bronze and the Classic to Roman periods. Type C is the Alpine, with both "Eastern" and "European" brachycranes in it. It is most frequent in the Submycenaean-Geometric and the Byzantine periods. All of the foregoing types are clearcut, while the next two seem rather to be more hybrid types, implying new genetic recombinations, but not proving this of course. Type E is a mesocrane Mixed Alpine type similar in form to the mixed populations of Iron Age Italy, Illyria,⁴ and Medieval France, etc.,⁵

⁴ Table IV, columns 3, 4, 8.

⁵ Morant, 1928.

but slightly larger. It is most common in the Middle Bronze Age and is noticeable in the whole first millennium B. C., but never approaches dominance. Finally Type F, the rarest of all, must be called Dinaric-Mediterranean rather than simply Dinaric because of its high mesocrany and its greater detailed resemblances to A, B, and D, than to C and E. It is noticeable in the Middle Bronze, frequent in both the Early Iron Age and Roman periods, but otherwise rare.

Analysis

While these types may serve as background for this report, two reservations must be made. The first, a theoretical one, is that such types are almost as arbitrary and lucidly unreal as are the characters of a Dickens novel. But both result essentially from the normal human desire to arrange things in some pattern or classification in order to understand them. And in the author's opinion the careful use of types can lead to a more dynamic analysis of the chronological and geographic changes in a varying population of any fixed culture area than can the use of all-inclusive averages *alone*, since these, even with the addition of correlations between measurements, fail to give any clear picture of the different kinds of individuals whose differing characters and backgrounds made up the cultural life of any community or group of communities. The second is the practical reservation that anthropologists must eventually have much more material from sites of all periods all over Greece before any sort of racial analysis can be considered better than a system of careful guesses, though this applies also to almost all craniological studies anywhere covering more than a single site.

With these reservations stated, the most promising method of comparison for the Olynthus skulls seems to be an individual description of each skull based on the systematic morphological observations made in the field, together with measurements (Tables I and III), photographs of the most complete skulls (Plates LXVIII-LXX), and an assignment of each to one of the six Greek physical types outlined above and in Table II.

The Olynthus Riverside Cemetery presumably was in use during the end of the sixth century and down to 348 B. C.,⁶ and the section dug in 1938 lay on the shoulder of the hill toward the cemetery's edge so that the individuals studied probably flourished around 400 B. C. or somewhat later. Thus these skulls are included in the series of Greek males of the Classical period⁷ with which their average may be compared. Other contemporary skull series of Illyrians, Scythians, Ionian Greeks, Etruscans, and Egyptians are also listed.⁸ But while such a geographical comparison can be made with clarity, there is little material for historical back-

⁶ *Olynthus*, VIII, pp. 2-3 and above, p. 137.

⁷ Table III, column 2.

⁸ Table IV.

ground for the Olynthians: the single Neolithic skeleton from Macedonia will be described below; the Illyrian material, with a Chalcolithic composite series from Rumanian and North Bulgarian sites of Gumelnitsa and earlier dates,⁹ as well as a mainland Greek series of Submycenaean-Geometric date,¹⁰ may help to clarify the probable racial history of the intermediate region of Macedonia.

1 *Ser. Servia*, Late Neolithic I, contracted inhumation burial cut through floor of burnt house E. N. 5 on mound near Servia in Haliaemon valley consists of a cranium and skeleton in fairly good condition, *young adult* in age (perhaps 25-30 years), and probably of *male* sex. It was excavated by Heurtley,¹¹ whose dating to the first part of the later Neolithic of Macedonia means that the body was probably buried about the beginning of the third millennium B. C., probably not long after the beginning of the intrusive Dimini culture in northeastern Greece. The skeleton is small and very light-boned, with platymeria and eurycnemia, and medium retroversion of the tibial head. The pelvis, however, seems unmistakably male, with narrow sacro-sciatic notch, markedly curved sacrum with a strong promonotory, and hence probably a heart-shaped pelvic inlet though lack of the left innominate prevents measurements of the pelvis as a whole. The femoral and humeral head diameters of 42 mm., and 38 mm. respectively and the lightness of bone appear female in contradiction to the maleness of the pelvis. But the stature is only 152 cm. (Pearson formula), and the gracility of the skeleton is less striking considering this small gross size.

The skull likewise is uncertain in sex criteria, appearing female in vault detail but male in face development. Koumaris, 1934, considers the vault (before repair of the face) to be female, but in deference to the pelvis it seems logical to consider the skeleton *male*? (Plate LXX, Lower). The skull is small, being almost brachy-crane, hypsicrane, and metriocrane in vault proportions, with a narrow forehead and a disharmonically long and narrow face, chaemerrhine, low mesoconch, with alveolar prognathism, and a long palate and jaw. The vault is sphenoid from above, and in profile has a steep forehead, a full curve to bregma, medium post-coronal depression of the high and rather short parietals, a trace of lambdoid flattening, and a high occiput with cerebellar region rising flatly to a slight constriction just below a medium inion. From behind, the full parietal bosses swell out above the almost flat temporals and narrow base to give a horseshoe-shaped outline. The whole braincase shows a short and narrow base with a well-filled cerebral region above, making an infantile impression. A narrow frontal, with medium bosses and small brow ridges, surmounts the narrow face in front view. The nose is broad at root and bridge, and of only small to medium height, and though the spine is strong the nasalia are concave or straight more probably than convex. The small orbits are elliptical, have little slope, and are bounded by compressed malars. They thrust forward somewhat with the midfacial prognathism of the maxillae, and the medium alveolar prognathism of upper and lower jaws accompanies a high and elliptical palate and a markedly deep but non-projecting

⁹ Table IV.

¹⁰ Table III, column 1.

¹¹ *Prehistoric Macedonia*, 1939, pp. 54, 256-7.

chin. The whole masticatory apparatus is notably long, deep, and narrow, and hafted to a narrow skull base it thrusts forward and downward in a prognathous face. The teeth show marked wear, a number of caries (5-8); shovel incisors are present and the alveolar border shows a few abscesses.

Thus the whole skull is a mosaic of juxtaposed disharmonies somewhat more subtly joined than the combination of short Alpine braincase and very long Mediterranean face which is most typical of the Dinaric,¹² though this is the most obvious explanation of the Servia Neolithic skull. On the other hand the only Alpine traits apparent are the breadth of nose and shortness of head; so that it seems to be, broadly speaking, the same Mediterranean which occurs together with skulls of several other types further to the south, in Neolithic and Early Helladic Greece.¹³ But this tendency in a Dinaric direction occurs at these sites also, and it occurs in Egypt increasingly from the early dynasties onward,¹⁴ though here it lacks the vault height of typical Dinaricisation as seen among some Bronze Age Cypriotes,¹⁵ while to the northeast it shows in some individual skulls included in the East Balkan series of Table IV. Thus the tendency seems more Dinaric-Mediterranean than Dinaric in the Cypriote-Aegean sense and does not necessitate any sort of stable fusion of Alpines with the Mediterranean type in Neolithic Macedonia. It would even seem conceivable for such a combination to result from reassorted tendencies of two Mediterranean types of contrasting size.¹⁶

Thus the Servia skeleton suggests the presence in Neolithic Macedonia of small Mediterraneans, at least a few Alpines probably of the small low-headed kind current in North Bulgaria¹⁷ and some variety of larger dolichocephal. This might include the Megalithic type as exemplified in the Neolithic Hageorgitika skull,¹⁸ from Arcadia, as well as some version of the Corded type common in South Russia by the Bronze Age at least, and present in the Chalcolithic of North Bulgaria at Rusé.¹⁹ This latter idea is supported by the Tsangli skull of Neolithic or slightly later (?) date²⁰ which seems to show a hint of the Dinaricisation of the Servia skull together with a high, hawklike nose form and other features reminding the observer of the Iranian traits which often occur in early skulls of Corded or proto-Nordic type.²¹ Racial influence on Macedonia by the second Neolithic period is plausibly more northeastern than southern. But this by no means disposes

¹² Coon, *Races of Europe*, pp. 140, 293, 601.

¹³ At Astaka in West Greece, at Corinth, and at Athens.

¹⁴ Morant, 1925; cf. Table IV, column 9.

¹⁵ Fürst, 1933.

¹⁶ Cf. Types A and B, Table II, columns 1 and 2.

¹⁷ Drončilo, 1924, Jaranoff, 1939, in Gaul's Harvard thesis, 1940.

¹⁸ Fürst, 1932. Re-examined by the author.

¹⁹ Drončilo, 1924.

²⁰ Duckworth, 1911.

²¹ Fürst, 1930. Cf. Table II, column 3. Also at Troy and Tepe Hissar. The author would like to refer here to his contribution to the publication of the results of the excavations at Troy by Dr. C. W. Blegen. This will appear some time in the future.

of the probably Mediterranean and Megalithic southern strains, which may very possibly be older in date and are basic in the later population. The Dinaric tendencies ought to be natural reassortments of traits from this quadruple mixture, though it is equally possible to derive them from a Lower Egyptian or other Mediterranean source. Whether the western Balkans added any of their blood to that of Neolithic Macedonians is unknown. But by the Iron Age they certainly had, though we have as yet no data for racial movements during the Bronze Age. Corded and Hallstatt Nordics probably at least passed through central Macedonia, but may not have had much effect on Chalcidice, while it seems likely that much mixture with Alpines of various west Balkan types had taken place by the Classical period.

1 Ol. Olynthus, Riverside Cemetery, Grave 407. This is the calvaria and jaw of a *young adult male*, probably over thirty, and only slightly warped *post mortem* (Plate LXVIII, Upper). It is large, dolichoecrane, and high, with narrow forehead and broad face and jaw. *Norma verticalis* shows a rounded pentagonoid. In profile the low forehead contrasts with the high bregma and marked shortness of the frontal bone. The long parietal region makes up for this with a long straight rise from bregma to vertex, a gentle obelion curve with a flattened lambda. The upper occipital bulges briefly above a strong, mound-form occipital torus, while the cerebellar plane is long and flat enough to give an angulated profile to the whole back of the skull. This rather high torus is the only striking feature of the rear view, though the temporals are less well filled than the parietals. The face is lost, though nasal and maxillary fragments suggest a high-bridged nose with concave-convex profile. And the jaw is both broad at condyles and angles and shallow but prominent in the chin region. Together with the unquestionably broad bizygomatic the jaw suggests a euryprosopic facial index, and the build of the upper orbital border and relatively broad biorbital estimate both suggest broad orbits with little or no tilt. And there is no hint of prognathism.

This skull is reasonably typical of Type A²² in Greece; a generalized version of Coon's Megalithic. Large size, dolichoecrany, angulation, lambdoid flattening, roof-shaped vertex, muscular nuchal region, long parietals, and forehead low in contrast with high vault all link the Olynthian with this type whose wide range from Urban Mesopotamia to Neolithic Scandinavia and Great Britain includes many local varieties and combinations formed in Europe by mixture with its predecessors. Thus the type in Greece often shows diminished linearity possibly through such mixture. And in 1 Ol. in particular the sharpness of the characteristics noted above is blurred by a greater general fullness of head and face. And though the short and narrow frontal bone contrasts unexpectedly with both vault and face, even this is answered adequately by the explanation of isolated Alpine tendencies operating in a basically Megalithic or Type A individual.

9 Ol. Olynthus, Riverside Cemetery, Grave 485. Medium *post-mortem* warping has left some skewing in the finally reconstructed skull. It is a cranium in fair condition of a *male adult* perhaps in his middle thirties (Plate LXVIII, Lower). It is long- and somewhat high-headed, with wide forehead, euryprosopic, markedly chaemer-

²² See Table II, column 1.

rhine and chaemeconch face with a broad palate. The top view is ellipsoid. And the profile is marked by a high forehead with short frontal region, long parietal bones flattened behind bregma and above lambda, and a very full well-curved occipital region. The rear view shows a rounded roof and flattened temporal planes, medium occipital torus but strong mastoids, while the front view shows a contrast to this long and barrel-vaulted braincase in the broad, high, and smooth forehead with strong browridges of median type surmounting a low and relatively wide and square face. The warped and partly reconstructed nose is certainly broad at bridge and aperture, while the low root and medium depression of nasion exaggerate the concavity of the crooked nasalia. The low oblong orbits have little slope, and are bounded by strong malars which do not flare. In contrast to the mid-facial narrowness the jowls are broad though only slightly everted and the mouth is likewise wide with excellent teeth showing little wear and an edge-to-edge bite. And it is in this region of the face that the most striking character of the skull occurs: the decided alveolar prognathism. It is of medium degree in both jaws and goes with a downward convexity of the occlusal plane in the molar region which gives an S-curve to the whole teeth row. The chin is not deep but does have medium projection.

As in the case of 1 Ol., therefore, the dominating tendency of 9 Ol. is toward Type A, with some plausibly Alpine traits in the breadth of forehead, jaw, and palate.²³ But the alveolar prognathism in a short face, the low, broad, and slightly saddle-shaped nose, and possibly some of the smoothness of the ellipsoid vault all could be interpreted as pseudo-negroid traits. These occur occasionally in European Mediterraneans from the Paleolithic onward and are probably indicators of the common ancestry of white and black races rather than of recent negroid mixture. Similar prognathism and nasal breadth sometimes occur in the Iranian type in both Iran and Anatolia, but here generally accompany a long face, retreating chin, and tilted jaw, which are all lacking in 9 Ol. But there were smaller dolichocephalones (more Danubian or Mediterranean, less "Cordé") described by Jaranoff from a mound near Kubrat (Balbunar) in north Bulgaria dug by Mikov in 1924 and of Gumelnitsa date. Among these, most notably in Nos. 6 and 7, occurs the combination of marked alveolar prognathism with a short face, wide nose, sloping forehead, and small vault size. Jaranoff finds this complex primitive rather than negroid, suggests a mesolithic or early neolithic origin, and compares the skulls morphologically with what he calls "proto-Mediterranean" tendencies in the skulls of "Megalithic" type from Ur and Cyprus.²⁴ Since somewhat similar but often less striking details can be found on other Greek skulls of both rugged and gracile Mediterranean varieties and at different periods, it seems likely that the Olynthus skull is an example of this, with possibly some added emphasis on palate size and nose breadth because of Alpine influence. This whole complex seems still to appear in the eastern Balkans sometimes in the Pontic Mediterranean

²³ Table II, column 6.

²⁴ Fürst, 1933; cf. skulls 21, 22 FCE, which are non-prognathous Type A, however.

type, though it is at present hard to see what connection the complex has with parallel details in early skulls from Iran and Anatolia.

4 Ol. Olynthus, Riverside Cemetery, 466. This cranium in fair condition has had warping largely corrected, but much of the crushed-in obelion region is missing. It is that of a *young adult male*, perhaps thirty or more years old (Plate LXIX, Upper). It is meso-, hypsi-, akro-crane; euryprosopic, chaemerrhine, chaemeconch, and brachyuranic. In spite of lower cranial index its vault is brachymorph, and ovoid in *norma verticalis*. In profile the high and only slightly sloping forehead curves with capacious smoothness to a high bregma. The damaged parietals likewise suggest a full curve to lambda with a trace of flattening at this point. The occiput too is well-filled, but not much curved. In *norma occipitalis* the arched skull roof has sides with only small temporal fullness, and both mastoids and occipital torus are medium in development. The front view shows strong brow ridges in a broad forehead, and a bluntly square face without much jowl development. The nose flares rapidly from a very narrow root of medium height to a broad bridge and aperture. The spine seems weak, and subnasal grooves of medium excavation occur. The small nasalia have a concavo-convex rather than simply concave profile. The orbits, oblong and with horizontal axes, are bounded by malars of medium size and projection. And the mouth has no prognathism. The jaw is medium in most characters with a non-projecting chin. The broad palate is parabolic in shape, and the teeth show pronounced wear, less than four caries, and an edge-to-edge bite. There are two alveolar abscesses, however, and the third molars on the right are suppressed.

All the morphological details of this cranium are Alpine: a general globularity of vault, and a short, blunt face that may well have had a blobby nose in life.²⁵ But it is too long, with too extended an occiput, and a braincase slightly too narrow, high, and large. These evidences of Type A influence, however, are perceptible only metrically, though they put the skull as a whole very close to the mixed Alpine Type.²⁶ It would likewise fit without difficulty into the very much mixed contemporary series of Illyrians from Carniola,²⁷ and the somewhat later group from the Glasinac plateau in Bosnia, east of Sarajevo,²⁸ especially if one allows for the strong Hallstatt Nordic influence in these. Earlier cranial series from the western Balkans are missing so far, so that it is impossible to be sure how dominant Alpine strains were during the Late Bronze Age or when the Hallstatt dolicho-crane (plausibly the historical Illyrians) penetrated the valleys and fertile plateaux of the Dinaric Alps. At present it seems possible to derive the modern Dinarics of this region from a mixture between a rugged variety of Alpine and a high-headed, long-faced variety of dolicho-crane (cf. Coon's Corded Type) as well as short-faced Mediterranean strains. This Dinaric type occurs in the Carniola and Glasinac

²⁵ Cf. Table II, column 6.

²⁶ Table II, column 5.

²⁷ Mahr, 1934. Author's measurements, by permission of Dr. H. O'N. Hencken of Peabody Museum. Cf. Plate IV, Lower.

²⁸ Schwidetzky, 1940; Weisbach 1897, 1907.

series of Illyrians, but plausibly it is a newly-formed hybrid of Iron Age date, since both series of skulls are extremely variable²⁹ and include high-headed, long-faced "Nordics," Mediterraneans comparable with both Type B and A in Greece, Dinarics, Mixed Alpines, and Alpines of both rugged and globular tendency.³⁰ Regarding the dolichocephalans as chiefly Iron Age intruders from both northwest and southeast, one may suppose the Bronze Age population of the region to have been dominantly Alpine, including both Borreby and more reduced somatic tendencies.³¹ This hypothesis would conveniently explain the appearance of Alpine traits in Iron Age Greece often in Dinaric or Mixed Alpine form and with frequent "Nordic" rather than "Mediterranean" details.³² The general effect of this is shown in Table III, columns 1 and 2. This would mean specifically a strong Alpine strain in the Dorians and would suggest that the Alpine tendencies should be stronger the further north and west they were followed from Central Greece. And if we can accept this last probability it would interpret skulls like 4 Ol. in the Chalcidice as descendants of an early Iron Age movement from West Macedonia set in motion by forces like those which drove the Dorians southward.

6 Ol. Olynthus, Riverside Cemetery, Grave 459. This skeleton belongs to a *male middle-aged adult*, who died at about forty, or more. The reconstructed stature is 167.51 cm. derived by the Lee-Pearson formula from right and left long bone measurements of 473 and 474 mm. for the femora (maximum), 319 for the humerus (left only) and 246 for the radii (both). The left humero-femoral index of 67.73 indicates short arms compared to legs and suggests that the stature actually was nearer 170 cm. This is confirmed by the high brachial index of 77.12 indicating long forearm and short upper arm. The broken clavicles were long, with approximate lengths of 160 mm., indicating broad shoulders. Muscle attachments are well-marked, especially those of the popliteus, soleus, and flexor longus on the rear surface of the tibiae. These are mesocephalic, however, since the shafts are not compressed laterally, with diameters at nutrient foramen level of 41 and 37, 38 and 25 mm. for the front-to-back and transverse measurements of right and left sides respectively. The femora are platymeric, on the other hand, with robust shafts having meagre bowing or pilastering. And the femoral head is large (*ca.* 49 mm. or more), and neck has medium torsion. Altogether this man must have been strongly built, probably with stocky torso and upper arms contrasting with long legs and tall stature.

The cranium is somewhat twisted from earth-pressure, with resultant slight skewing of frontal and face (Plate LXIX, Lower). It is large, almost brachycranean, and low, with pinched forehead, with broad face and jaw, low orbits, but narrow nose. Narrowness of forehead and occiput point toward a rhomboid *norma verticalis*, with parietal fullness and marked postorbital constriction modifying it in a byrsoid direction. The rugged brow ridges are well-developed laterally and go with a low

²⁹ Cf. Schwidetzky, 1940, and personal observation on Carniola series.

³⁰ Schwidetzky's Types II, I and IIb, IV, V, IIIa and IIIc.

³¹ Coon, pp. 85 and 592-3.

³² Cf. Breiting, 1939.

and sloping forehead. Parietal flatness behind bregma and from obelion to lambda goes with the low vault, while the well-curved occiput projects enough to make the skull look long in profile. *Norma occipitalis* is a squat horseshoe shape with bulging sides, and a marked ridge torus for nuchal muscles. The face is strikingly broad, rather than low. The narrow nose has concave nasalia which project enough to make the narrow bridge very high in contrast to the retreating profile of the hyperorthognathous facial plane. This agrees with the lack of protrusion of the slab-like, large, and laterally flaring cheekbones, which bound orbits of rhomboid form and large width. This backward restriction combined with breadth is carried down into the lower face with a short and broad hyperbolic palate and jaw, the latter with very square angles and relatively deep corpus. The teeth are markedly worn, especially in the incisor region, with few caries (1-4). Lack of alveolar protrusion, and an edge-to-edge bite exaggerate the strength of the fairly projecting and well-squared chin.

Like 4 Ol. this skull is dominantly Alpine, but shows other contrasting tendencies also. It is slightly too long, too leptorrhine. But except for its lowness of head 6 Ol. approaches closely the type generally known as Beaker brachycephal of the Bronze Age and later in Great Britain³³ and the Rhineland. The similarity seems to lie in the rugged tendencies of the early European brachycranial type which Coon calls Borreby. This seems to be the dominating component in the British Bronze Age, combining with high-headed, long-faced, and often plan-occipital Bell-Beaker brachyranes, and with longheads of both Corded and Long Barrow types to produce the highly variable mixture averaged in Table IV, column 2. And though the average of Bronze Age crania show higher heads and longer faces than 6 Ol. has, many individuals can be found which are almost identical with this 4th century Macedonian,³⁴ and are less dinaricised and closer to the Borreby prototype than the average. It is not clear in the Balkans to what extent the Bell-Beaker Dinaries may have blended with the local strains of Alpine and Borreby, but by the Iron Age at least there existed low-headed and often rugged brachyranes as well as high-headed Dinaries and globular Alpines. This is clear in the Glasinac group³⁵ where the contrast with Dinaries is very striking. And lowheads occur in the Carniola series as well as dominating the modern village group from Greifenberg in Carinthia,³⁶ while finally the Submycenaean-Geometric series from Greece includes enough of these lowheads to counterbalance the Dinaric effect on the average head height. Specific examples include 31, 32, 34 F'A from Asine,³⁷ 35 C from Corinth,³⁸ and the skull from Submycenaean Grave A in the Athenian Cerameicus which is clearly a Borreby-like cranium.³⁹ Thus a basic rugged Alpine strain in

³³ Cf. Table IV, column 2.

³⁴ Cf. illustrations published by Schuster, 1905; and by Morant and Reid, 1928.

³⁵ Though Weisbach's auricular height seems 8-10 mm. too low, in spite of its stated equivalence with Martin's measurement no. 21. Schwidetzky, 1940.

³⁶ Table IV, column 5. Shapiro, 1929. Cf. Pl. LXXI, Lower.

³⁷ Fürst, 1930. Re-examined by the author.

³⁸ Unpublished, examined by the author.

³⁹ Breiting, 1939. Re-examined by the author. Cf. Kraiker-Kübler, *Kerameikos, Die Nekropolen des 12. bis 10. Jahrhunderts*, 1939, Pl. 87.

the Western Balkans and Greece is exemplified in 6 Ol. Low-headed brachyranes often with byrsoid vaults occur beside hypsicerane Eastern Alpines and Dinaries in Bronze Age contexts in the Near East, however. And via central Greece these seem to overlap the Balkan ones. Both typically have the square jaws, orthognathy, and often projecting nose which give the face of 6 Ol. a similarity to such Dinaric skulls as 27 FCE from Enkomi in E. Cyprus.⁴⁰ But the exact connection of both low-headed and high-headed and Dinaric brachyranes in these three areas still remains to be worked out: parallel mixtures may be the solution rather than extensive migration of either Alpines or Dinaries. And on this basis it seems more logical to link such skulls as 6 Ol. with Balkan and mainland Greek local Borreby influence, and to ignore possible Levantine analogies.

2 Ol. Olynthus, Riverside Cemetery, Grave 438. This is the posterior half and jaw of a *female* (?) *middle-aged adult*. The skull seems small and may have been a high mesocrane or low brachyran. The jaw is shallow with broad and flaring gonial angles. This may possibly have been the female version of 6 Ol. or 4 Ol.

3 Ol. Olynthus, Riverside Cemetery, Grave 507. In spite of Alvar impregnation both decay and post-mortem warping have been difficult to circumvent in this skull (Plate LXX, Upper). It belonged to a *young adult female* with a markedly dolichocrane and high-vaulted cranium, leptoprosopic and leptorrhine. From above, the form is a rounded rhomboid, with wedge-shaped occiput and frontal region. The profile shows a somewhat low but vertical forehead with barely perceptible brow ridges, a long and even curve from the frontal bend to lambda, and a projecting occiput. The sides of the vault are almost flat in rear view, with sharp bends at the parietal bosses, but a rounded rather than roof-shaped vault of considerable height. The facial linearity shows a marked contrast to the Olynthus skulls so far discussed and is notable for its rather low, rhomboid, and markedly drooping orbit form as well as for extreme compression of malars and a long horse-faced jaw and palate with a neutral chin and possibly some alveolar prognathism, though the front part of the palate is too much restored for certainty. The teeth show slight wear, no caries, shovel incisors, and a slight overbite.

In a generalized sense this is the most extreme Mediterranean of the Olynthus skulls. But while its general size and incipient angularity ally it with Type A as in 1 Ol. and 9 Ol., its high, smooth-profiled vault with projecting occiput, and its combination of a narrow, horse-faced visage with low and drooping orbits both suggest northern parallels with either the Corded or Hallstatt Nordic types.⁴¹ While it is extremely precarious at present to try to distinguish female Nordics in a southern Balkan or Greek Iron Age context, this type probably did penetrate southward from the Danubian plains, though probably generally mixed with local strains. In Greece in the Classical Period Hallstatt Nordic type skulls generally show some Alpine or Mediterranean similarities.

7 Ol. Olynthus, Riverside Cemetery, Grave 461. This calva belonged to a *subadult female*, mesocrane, with a pentagonoid *norma verticalis*. The profile

⁴⁰ Fürst, 1933.

⁴¹ Cf. Type D, Table II, column 3, for male means.

shows a lowish and vertical forehead with small brow ridges and well-marked bosses, a well-arched roof with some flattening above lambda and a sharply-curved and projecting occiput. The jaw is shallow with a weak chin, but too few facial fragments remain for observation. The general form is Mediterranean.

8 Ol. Olynthus, Riverside Cemetery, Grave 500. This is the calva of a *young adult female*. It is just brachycrane, and may have had a low vault. From above it is a rounded rhomboid shape, with some possible similarity with 6 Ol. The profile shows a low forehead, only slightly sloping, and a low evenly curved roof. The parietals are well-filled and have some lateral bulge. Facial scraps indicate a slight nasion depression and low and broad nasal root. The general form seems more Mixed Alpine than Alpine.

Two of the four remaining Olynthus skulls the author had partly mended but not measured before he had to leave Greece. One of these seems to be an *adult male* of Mediterranean type.⁴² The other is a brachycrane with somewhat flattened occiput. It might be either Alpine or Dinaric in type.

The male skeletons from Graves 505 and 463 give stature estimates of 159.72 cm. and 166.46 cm. respectively, have perfectly usual proportions and long bones that are muscular and rugged rather than gracile. They are eurymeric and eury- and mesocnemic respectively. The skeleton from Grave 499, on the other hand, is markedly platymeric and platynemic (indices of 71.43 and 55.56 respectively) but the long bone epiphyses were too decayed to give any but approximate length measurements. Stature might have been 166 cm.

Four female skeletons from Graves 465, 442, 502, and 476 are uniformly eurymeric and eurycnemic or mesocnemic. The statures are below medium, and the four skeletons remarkable only for the well-developed third trochanter on the femur, and hypertrophy of the bony ridge along the insertion of the popliteus and origin of the soleus muscle on the back of the mesocnemic tibiae of the skeleton from the Grave 502.

Synthesis

The averages of Table III, column 3 must not be used too literally as truly representative of the average Olynthian: but they are at least guides to the comparison of classical period Macedonians with other Greeks, with Scythians, Ionians, Etruscans. The average ancient Greek, an artificially imagined creation of averages represented in Table II, columns 7 and 8, differs from the average northwest European (or American) in several ways. His stature is much shorter, and his skull is slightly smaller with a much shorter face having relatively wider jaws and mesorrhine nose, while it is notable that the females are *more* leptoprosopic as well

⁴² Type B, Table II, column 2.

as more hypsiconch than the males. Brow ridges tend to be large, and of divided type. Foreheads are somewhat low, not narrow and not sloping, while the parietals are well-filled, rounded on top with rather flat sides, and the medium musculature of the occiput contrasts with strong mastoids. Basal region shows strong relief with high basion and deep glenoid fossa tendencies. The face tends to have horizontal rather than drooping orbits, shallow nasion depression, and high and narrow nose root and bridge. The palate is high and jaw robust but not deep, with strong pterygoid and masseter attachments but without much chin projection. The teeth are good, with few caries or alveolar abscesses, though fairly frequent suppression of third molars (23%). In pigmentation he was probably dominantly brunet, but blondism certainly occurred. This could be interpreted as a fairly even compound of generalized Mediterranean and Alpine characters.

From this composite the average Classical Greek differs in being taller and larger-headed. The skull is longer, especially in the parietal and basal regions, and the lower part of the face is deeper, broader, and longer. And the chief morphological differences seem to result from a relative increase in Nordic-Mediterranean and decrease in Alpine characteristics. Thus when one compares the classical Olynthian with the average one finds the Olynthian bigger-headed and higher-headed, with relatively pinched forehead, but with more capacious, well-filled braincase as a whole. The Olynthian face is markedly broader, especially in contrast to the forehead and head as a whole. This shows in the low Zygo-frontal, and high Fronto-gonial and Cranio-facial indices of Table III, column 3. But the shortness of face is equally striking, so that metrically the Olynthian average shows an Alpine face and nose joined onto a mainly Type A Mediterranean braincase, which does show, however, an Alpine fullness partly expressed by the large Transverse Arc. Thus divergences from the classical Greek type are in the direction of the total average, but tend to go beyond this. And the general form of Classical Olynthians was more Mixed Alpine than that of Greece as a whole,⁴⁸ combining a rugged

⁴⁸ Cf. Table II, column 5, Type E.

Mediterranean but mesocrane and capacious vault with a square Alpine face. Nordic and Small Mediterranean strains were also present, and actually either or both might have been more important than the present sample shows. But the apparently striking lack of Dinaric influence may be correct and not simply caused by the small sample, since Dinarics do not seem to be so common in the eastern regions of modern Greece as in the west. A purely subjective estimate of the percentage contribution of the six different physical types outlined in Table II to the "average Olynthian" might run as follows: Rugged Mediterranean (Type A) 25%, Small Mediterranean (Type B) 12%, Mixed Nordic (Type D) 10%, Dinaric-Mediterranean (Type F) 3%, Mixed Alpine (Type E), 20% and Alpine (Type C) 30%.

The foregoing description of the average Olynthian suggests two positive conclusions. First that the much mixed population of Classical Olynthus, in spite of its rather low cranial index, was more Mixed Alpine in general type than the contemporary population of Greece south of Macedonia. In this respect the Olynthians parallel groups like Etruscans, southern Illyrians, western Scythians, Ionian Greeks, rather than Athenians, Corinthians, or Egyptians.⁴⁴ And in this they show the effect of racial links with the western Balkans probably of the Late Bronze Age rather than Iron Age date.

In the second place this Mixed Alpine compound stresses the opposite kind of disharmony from the Dinaric kind. It combines a short Alpine face with a long, but not linear, Mediterranean braincase. And it is thus superficially less conspicuous than the linear face and short, high head of the Dinaric, which is already beginning to appear by the Iron Age in crania of southern Illyria. In this Mixed Alpine disharmony one can see an apparently simpler, less unexpected recombination of the traits of mostly short-faced Mediterranean strains and a possibly less variable and rather rugged Alpine variety than occurs among Dinarics. It is an intermediate rather than an extreme disharmony.

Further, the tendency to segregation of types as divergent as

⁴⁴ Cf. Table IV, columns 8, 3, 4, 5, 7 and 9.

3 and 1 Ol. in contrast with the blended disharmonies of 9, 4, and 6 Ol. hints at a long-standing hybridisation of two or more generations rather than a recent one, but with no sign of inbreeding. This can hardly be considered a certain hypothesis, however. But it would seem to support the probability suggested above and in the discussions of individual skulls that the similarity to Classical Greeks in general is simply local parallelism. And if this is true, even the indirect effect of colonists or traders from the south seems to be lacking. But even so the importance of the Type A strain as a local variant of Atlanto-Mediterranean from the south must be remembered, and it seems plausible that this type was as basic in Macedonia in the as yet unknown Bronze Age population as it was and is in the rest of Greece.

This leads us finally to an attempted synthesis of the racial history of Macedonia, an essay already outlined under the discussion of the Neolithic skeleton from Servia. In the light of the material from Neolithic and Early Bronze levels in Greece and the Balkans studied so far that skeleton suggested the slight importance or even absence of Alpine influence as contrasted with the overlapping of Mediterraneans, both rugged and gracile, with the long-faced, high-headed Corded and Danubian types from the north, and the occurrence of partly Dinaric hybrids as a result. This hypothetical situation must have been followed by a shift westward of influence from the north with a steady increase in Alpine influences on the Chalcidice, but without any diminution of importance of Type A, short-faced Atlanto-Mediterranean influence; until by classical times a robust, medium tall, heavy-browed, large- and long-headed, square-faced, short-nosed, and broad-jawed blend which is chiefly Mixed Alpine had been produced. Since that time no startlingly great change seems to have taken place, since modern Olynthians and other Chalcidicans differ from the Classical ones only in having more Dinaric and Pontic Mediterranean, and fewer Alpine tendencies: longer and narrower faces and smaller heads. But the short-faced Atlanto-Mediterranean is still the basic morphological type, especially in its Mixed Alpine blend.⁴⁵

⁴⁵ See Table V, and Plate LXXI, Upper.

Actually this is the expected result, since among modern Greeks as a whole the continuity of old, often pre-Classical, racial strains is striking considering the historical turmoil through which the Greeks have kept their identity as a people. But the essence of such racial continuity is change, mixture, and segregation of old hereditary characteristics to form a dynamic and shifting pattern which never precisely repeats itself. The skeletons studied so far give no more than a static, shadowy idea of the movement of this continuous pattern of people: the ghost rather than the germ of an idea. And yet it is only with greater understanding of patterns of race mixture in peoples of our whole world that we will ever learn to control the patterns of our civilization. The study of these ancient Olynthians and other Greeks shows at least that the first civilization of Europe was achieved by a highly mongrel, much mixed and subtly blended people. But to learn further the *exact* genetic elements in the mixture, their proportions, and above all the historical timing of this continuous pattern of hybridisation, we will need more patience, more curiosity, and more strength than Menelaus used in his struggle with Proteus, that amoeba-like Old Man of the Sea.

TABLES

TABLE I

Individual measurements and indices of Macedonian crania

Provenience	Servia Late Neolithic ca. 2800	OLYNTHUS								
		Classical Period, Early IVth Century								
		ca. 400 to 348 B. C.								
Character	1 Ser. Grave under house E. N. 5	1 Ol. Grave 407	9 Ol. Grave 485	4 Ol. Grave 466	6 Ol. Grave 459	2 Ol. Grave 438	3 Ol. Grave 507	5 Ol. Grave 442	7 Ol. Grave 461	8 Ol. Grave 500
	♂	♂	♂	♂	♂	♀	♀	♀	♀	♀
Horiz. Circumf.....	494	537	530	524	525		(544) ¹			
Sagittal Arc.....	367	377	384	(383) ¹	358		373?			
Frontal Arc.....	(122)	(114)	132	135	128) ²					
Parietal Arc.....	(130)	(146)	143	140?	119) ²					
Occipital Arc.....	(115)	(117)	110	113	119) ²					
Transverse Arc.....	303	320	313	322	313		315			
Length.....	174	194	192	187	185	(175?)	188	175??	177	173
Breadth.....	139	143	135	144	147	135	131	130??	138	140
Basion-Brg. Ht....	132	135?	136	142?	(125)		137?		(125)	(122)
Auricular Ht.....	115	124	116	123	114	110?	120			
Minimum Frontal ..	90	92	101	96	92		(94)		(89)	(100)
Maximum Frontal..	113	(122)	120	126	124) ²					
Frontal Angle.....	53	61?	52	53	48		54?			
Frontal Chord.....	(108)	(99)	114	116	113) ²					
Parietal Chord.....	(117)	(130)	131	124	112) ²					
Occipital Chord....	(94)	(99)	92	101	98) ²					
Vault Thickness....	5	6	7-	5+	7	5+	5-			
Basion-Nasion.....	92	106?	108	108?	(112)		102?			
Basion-Prosthion...	96		109?	(106)	(101)		96			
Facial Angle.....	79		82	81	97		89?			
Midfacial Angle....	83		(90)	91	103		(101)			
Alveolar Angle.....	65		(48)	60	96		(54)			
Bizygomatic.....	118	(142)	128	134	142 ?	(136)	123?			
Bigonial.....	89	105?	107	97	105 ?	98	92?			
Face Height.....	116	(109??)	107	109	113		118?			
Upper Face Ht.....	67		60	62	69		67?			
Nose Height.....	44		47?	47	49		51??			
Nose Breadth.....	24?		28?	28	21??		23?			
Nasalia Angle.....	65		(68)	64	63					
Upper Nasalia.....	13		10	8	14					
Lower Nasalia.....	17??		(20)	17	15					
Left Orbit Ht.....	31		31	32	33??					
Right Orbit Ht....	31		31	30	30?		30			
Left Orbit Br.....	36		(39)	39	41					
Right Orbit Br.....	38	(39)	40	38	41		40-			
Interorbital.....	20	(21)	(23)	20	24		20			
Biorbital.....	93	99?	101	97	100?		96			
Palate Length.....	56		57	51?	(48)		(54)			
Palate Breadth....	62		71?	60?	(69)		(58)			

TABLE I—Continued

Provenience	Servia	OLYNTHUS									
	Late Neolithic ca. 2800	Classical Period, Early IVth Century									
		ca. 400 to 348 B. C.									
Character	1 Ser. Grave under house E. N. 5	1 Ol. Grave 407	9 Ol. Grave 485	4 Ol. Grave 466	6 Ol. Grave 459	2 Ol. Grave 438	3 Ol. Grave 507	5 Ol. Grave 442	7 Ol. Grave 461	8 Ol. Grave 500	
	♂	♂	♂	♂	♂	♀	♀	♀	♀	♀	
Symphysis Ht.	36	(27)	31	33	29+?	31?	35?	(21)			
Jaw Length	106	94	(109)	107?	(96)	105	(106)				
Bicondylar Br.	108?	(127)	(122)	118?	(133)	115	(112)				
Jaw Angle.	132	128	127	126	109	136	130				
Min. Ramus Br.	32	32	33	31	34	26	31				
Corpus Thickness. . .	13	17	19	14	17	12					
Cranial Index.	79.89	73.71	70.31	77.01	79.46	(77.14)	69.68	(74.29?)	77.97	80.92?	
Length-Height.	75.86	69.59?	70.83?	75.94?	(67.57)	72.87?		(70.62)		(70.52)	
Breadth-Height. . . .	94.96	94.41?	100.74	98.61?	(85.03)	104.58?		(90.58)		(87.14)	
Length-Auric. Ht. . .	66.09	63.92	60.42	65.78	61.62	(62.86)	63.83				
Breadth-Aur. Ht. . . .	82.73	86.41	85.93	85.42	77.55	81.84?	91.60				
Fronto-Parietal. . . .	64.75	64.34	74.81?	66.67	62.59	(71.76)		(64.49)		(71.43)	
Cranio-Facial.	84.89	(99.30)	94.81	93.06	93.60?	(100.74)	93.89				
Zygo-Gonial.	84.89	73.94?	83.59	72.39	73.94?	(72.06)	(74.80)				
Fronto-Gonial.	98.89	114.13?	105.94?	101.04	114.13	(97.87)					
Zygo-Frontal.	76.27	64.79	78.91	71.64	64.79?	(76.42)					
Facial Index.	98.31	(76.76)	83.59	81.34	79.58?	95.93??					
Upper Facial.	56.78		44.44	46.27	48.66?	54.47??					
Nasal Index.	54.55?		59.57	59.57	42.86?	(45.10)					
Left Orbital.	86.11			82.05	80.49?						
Right Orbital.	81.58		77.50	78.95	73.17?	75.00?					
Interorbital.	21.51	(21.21)	(22.77)	20.62	24.00?	(20.83)					
Ext. Palatal.	110.71		124.56	117.65	(143.75)	(107.41)					
Mandibular.	98.15	(74.02)	89.34	90.68	(72.18)	91.30	(94.64)				
Morphological Type.	F	A	A	C	C	C	D	?	B	E	
		Grave 505	Grave 463	Grave 499			Grave 502	Grave 476			
Stature in cm.	152.05	159.72	166.46	(166.09)	167.51		150.88	149.83			
(Pearson formula)											

¹ All measurements in parentheses are statistically invalid: they are subjective estimates based often on uncertain reconstruction or having one end point missing.

² Frontal, Parietal, and Occipital Arcs and Chords, and the Maximum Frontal diameter (except in the Servia skull) are equally uncertain, having been measured on photographs after the author's return from Greece. Naturally they cannot be used for objective comparison.

TABLE II

Mean measurements, indices, and variabilities (V and σ) of six male morphological types, of total series of males and of females of Mainland Greece, from ca. 3000 B. C. to 1300 A. D., with percentages of occurrence of morphological types.

Character	Type A		Type B		Type D		Type F		Type E		Type C		Total Series Males: Mainland Greece						Females	
	M	N	M	N	M	N	M	N	M	N	M	N	M	p. e.	σ	p. e.	V	p. e.	M	p. e.	N
Horiz. Circumf.	525.73 ¹	45	506.38 ¹	41	525.92 ¹	39	510.87	16	528.04 ¹	23	511.62 ¹	32	518.39 \pm .73	199	15.34 \pm .52	2.79 \pm .09	2.79 \pm .09	499.49 \pm .82	95	
Sagittal Arc.	381.24	35	368.67	43	381.58	36	368.65	16	377.71	21	365.33	27	374.46 \pm .65	179	12.84 \pm .46	3.43 \pm .12	3.43 \pm .12	362.68 \pm .79	82	
Frontal Arc.	129.50	32	123.41	33	128.29	29	126.33	12	130.50	21	126.92	24	127.40 \pm .33	161	6.14 \pm .23	4.82 \pm .18	4.82 \pm .18	124.02 \pm .41	87	
Parietal Arc.	128.96	38	129.00	32	129.61	36	128.50	12	127.17	21	125.25	24	128.48 \pm .40	162	7.56 \pm .28	5.88 \pm .22	5.88 \pm .22	124.28 \pm .50	92	
Occipital Arc.	120.29	27	116.06	27	123.19	32	118.68	11	118.62	17	114.59	22	118.96 \pm .37	134	6.36 \pm .26	5.35 \pm .22	5.35 \pm .22	113.68 \pm .59	66	
Transverse Arc.	307.15	39	301.95	40	312.57	37	309.88	17	317.29	21	313.20	30	309.42 \pm .54	185	10.86 \pm .38	3.51 \pm .12	3.51 \pm .12	299.22 \pm .74	86	
Length.	191.07	56	181.93	54	189.16	44	181.74	19	186.00	29	177.65	37	185.16 \pm .31	238	6.98 \pm .22	3.77 \pm .12	3.77 \pm .12	176.34 \pm .33	130	
Breadth.	139.54	57	136.29	58	140.30	43	142.56	18	144.56	27	144.85	39	140.31 \pm .25	243	5.79 \pm .18	4.13 \pm .13	4.13 \pm .13	136.32 \pm .34	130	
Basion-Brg. Ht.	133.19	36	131.05	42	135.03	36	135.37	16	134.11	18	132.52	29	133.19 \pm .28	177	5.61 \pm .20	4.21 \pm .15	4.21 \pm .15	129.02 \pm .36	87	
Articular Height.	116.22	50	113.52	56	117.64	45	117.42	19	117.88	26	116.92	37	116.24 \pm .20	234	4.61 \pm .14	3.97 \pm .12	3.97 \pm .12	112.64 \pm .28	116	
Minimum Frontal	97.28	43	93.23	47	97.73	45	95.18	17	99.00	26	97.00	34	96.36 \pm .22	213	4.80 \pm .16	4.98 \pm .16	4.98 \pm .16	92.95 \pm .23	101	
Maximum Frontal	117.64	28	114.13	27	118.14	33	117.39	9	125.62	16	120.68	22	118.18 \pm .34	136	5.96 \pm .24	5.04 \pm .21	5.04 \pm .21	113.97 \pm .42	71	
Frontal Angle.	50.00	34	50.73	37	49.11	35	50.71	17	51.71	14	51.14	29	50.41 \pm .18	165	3.49 \pm .13	4.72 \pm .19	4.72 \pm .19	50.71 \pm .26	78	
Frontal Chord.	114.17	30	109.12	29	113.83	36	112.24	11	114.83	18	111.86	22	112.66 \pm .26	146	4.72 \pm .19	4.19 \pm .17	4.19 \pm .17	107.68 \pm .34	81	
Parietal Chord.	116.56	36	115.21	28	116.62	33	114.33	12	114.06	18	112.33	23	115.30 \pm .33	150	5.96 \pm .23	5.17 \pm .20	5.17 \pm .20	111.44 \pm .42	85	
Occipital Chord.	99.19	26	96.33	24	101.46	27	98.67	12	99.07	14	94.80	20	98.28 \pm .34	121	5.62 \pm .24	5.72 \pm .25	5.72 \pm .25	93.84 \pm .39	61	
Basion-Nasion.	102.47	32	98.02	41	102.67	34	100.80	15	103.43	14	97.65	26	100.52 \pm .26	160	4.95 \pm .19	4.92 \pm .19	4.92 \pm .19	95.89 \pm .32	76	
Basion-Prosthion	98.87	16	93.79	28	97.36	33	96.00	15	95.00	9	93.21	24	95.75 \pm .32	125	5.23 \pm .22	5.46 \pm .23	5.46 \pm .23	91.22 \pm .44	58	
Facial Angle.	86.37	16	86.07	27	86.09	32	87.00	17	88.70	10	87.42	26	87.28 \pm .22	128	3.68 \pm .16			86.25 \pm .38	60	
Midfacial Angle	93.61	18	92.94	27	92.50	32	92.27	17	95.50	10	93.50	26	93.20 \pm .22	130	3.64 \pm .15			92.82 \pm .34	57	
Alveolar Angle	66.90	15	67.69	27	69.31	32	72.38	17	68.10	10	69.17	24	69.10 \pm .42	127	7.00 \pm .38			66.64 \pm .52	58	
Bizygomatic.	132.52	21	125.46	24	131.55	33	133.89	18	133.62	16	133.00	25	131.36 \pm .39	138	7.86 \pm .28	5.22 \pm .21	5.22 \pm .21	122.47 \pm .46	66	
Bigonial.	102.78	7	93.59	11	103.90	20	97.23	11	99.39	9	99.83	21	99.70 \pm .56	81	7.44 \pm .39	7.46 \pm .40	7.46 \pm .40	92.90 \pm .49	44	
Face Height.	109.17	6	112.32	11	118.12	26	116.57	14	109.70	10	109.83	21	113.89 \pm .55	88	7.68 \pm .39	6.75 \pm .34	6.75 \pm .34	108.60 \pm .73	39	
Upper Face Ht.	67.05	19	66.67	30	71.08	37	71.68	19	67.08	12	65.31	27	68.38 \pm .27	144	4.88 \pm .19	7.14 \pm .28	7.14 \pm .28	65.15 \pm .32	68	
Nose Height.	48.92	22	49.21	33	51.97	36	52.00	19	49.43	14	49.14	28	50.18 \pm .19	152	3.50 \pm .14	6.97 \pm .27	6.97 \pm .27	48.23 \pm .22	70	
Nose Breadth.	24.92	22	23.80	31	24.78	37	24.47	19	24.57	14	24.64	28	24.54 \pm .10	153	1.89 \pm .73	7.70 \pm .30	7.70 \pm .30	23.39 \pm .15	66	
Nasalia Angle.	54.50	17	55.05	22	51.96	26	56.60	14	57.17	9	53.79	21	54.74 \pm .43	109	6.64 \pm .30			55.68 \pm .75	37	
Upper Nasalia.	12.51	39	12.00	44	12.22	37	11.83	18	12.73	22	12.45	31	12.29 \pm .12	192	2.37 \pm .08	18.28 \pm .63	18.28 \pm .63	12.04 \pm .17	85	

Lower Nasalia...	18.11	9	16.43	33	17.09	22	16.92	13	17.54	11	16.62	21	17.03±14	100	2.10±10	12.33±59	16.40±19	40
Left Orbit Ht....	32.24	25	32.16	31	32.79	34	33.07	15	32.46	13	32.61	26	32.52±13	144	2.30±0.9	7.07±28	33.12±21	67
Right Orbit Ht....	32.19	21	32.41	34	33.11	35	33.12	17	32.71	14	32.56	27	32.56±13	145	2.28±0.9	6.98±28	32.94±21	63
Left Orbit Br....	38.65	23	38.12	33	39.68	34	39.67	15	40.21	14	39.71	24	39.21±10	143	1.82±0.7	4.64±19	38.00±17	61
Right Orbit Br....	39.33	21	38.43	35	39.74	35	39.81	16	40.57	14	39.92	24	39.50±10	142	1.84±0.7	4.66±19	38.13±15	62
Interorbital.....	22.03	25	20.71	41	21.61	38	21.67	18	21.90	20	21.88	33	21.57±10	185	2.10±0.7	9.74±34	21.02±16	81
Biorbital.....	99.85	26	95.81	32	98.62	32	98.71	17	99.47	17	99.16	25	98.40±22	151	3.98±15	4.04±16	94.31±29	59
Palate Length....	53.67	21	52.48	27	54.68	34	53.58	17	55.00	10	51.74	23	53.41±17	134	2.97±12	5.56±23	50.49±21	59
Palate Breadth...	63.77	22	60.77	22	64.03	29	63.82	17	66.29	7	63.20	20	63.32±23	119	3.71±16	5.86±26	58.64±32	59
Symphysis Ht....	32.99	9	30.00	23	32.93	29	33.44	16	30.90	10	30.48	25	31.55±22	116	3.47±15	11.00±49	29.04±29	54
Jaw Length.....	102.50	4	99.90	10	104.12	16	105.36	7	104.79	7	101.25	16	102.86±64	61	7.38±45	7.17±44	97.66±65	38
Bicondylar Br....	123.13	3	115.41	11	124.64	14	121.93	7	125.64	7	122.23	15	121.83±65	58	7.34±46	6.02±38	115.86±75	37
Jaw Angle.....	123.13	3	122.94	18	122.95	22	123.73	13	126.70	10	121.30	20	123.40±44	92	6.25±31	7.56±34	126.10±46	49
Min. Br. Ramus...	31.87	8	31.36	25	31.86	28	31.80	15	31.44	11	30.62	21	31.47±15	110	2.38±11	7.56±34	30.18±25	51
Corpus Thickness	15.00	14	14.08	25	14.84	25	14.21	14	14.70	10	14.77	21	14.63±11	116	1.76±0.8	12.03±53	13.64±15	47
Mean V of Vault ²	3.66	42.1	3.28	44.9	3.57	39.2	3.43 ²	15.2	3.63	22.1	3.62	31.3	4.07	196.4			3.68	97.4
Mean V of Face ³	6.06 ²	19.6	5.67	24.9	6.15	30.1	5.67 ²	15.2	(5.85)	11.8	6.90	23.8	6.74	124.5			6.28	57.9
Mean σ of Angles	5.45 ²	17.8	5.04	26.3	4.10	29.8	5.20 ²	15.8	(6.51)	10.5	4.52	24.3	5.12	125.2			4.82	56.5
Cranial Index....	73.23	55	74.55	54	74.08	43	78.61	18	77.83	27	81.77	37	75.99±17	234	4.27±18		77.49±26	126
Length-Height...	69.81	36	72.10	42	71.69	36	74.31	16	72.11	18	74.84	29	73.23±18	177	3.48±12		73.33±22	86
Breadth-Height...	95.99	35	96.33	42	96.28	36	94.75	16	92.39	18	91.40	29	94.89±25	176	4.90±18		94.95±37	84
Length-Auric. Ht.	60.67	48	62.38	52	62.27	44	64.55	19	63.69	26	65.88	34	62.85±14	223	3.07±10		63.82±17	111
Breadth-Aur. Ht.	83.60	49	83.93	54	83.97	43	82.00	18	81.62	25	80.58	36	82.93±17	225	3.79±12		82.60±26	111
Fronto-Parietal...	69.87	43	68.78	46	69.65	41	66.50	16	68.30	25	66.72	32	68.61±17	203	3.60±12		68.20±22	97
Transv. Frontal...	82.7	*	81.7	*	82.7	*	81.1	*	78.8	*	80.4	*	81.5	*			81.6	*
Frontal Curve...	88.2	*	88.4	*	88.7	*	88.9	*	88.0	*	88.1	*	88.4	*			86.8	*
Parietal Curve...	90.4	*	89.3	*	90.0	*	89.0	*	89.7	*	89.0	*	89.7	*			89.7	*
Occipital Curve..	82.5	*	83.00	*	82.4	*	83.1	*	83.5	*	82.7	*	82.6	*			82.6	*
Cranio-Facial....	94.35	20	92.37	24	93.37	33	93.68	17	91.43	15	91.26	25	92.81±22	137	3.87±16		90.45±36	65
Zygo-Gonial.....	77.50	5	76.07	7	79.34	19	74.80	10	74.37	8	75.34	19	76.53±40	69	4.98±29		75.53±52	29
Fronto-Gonial....	105.90	5	102.37	8	106.70	20	104.83	9	100.87	8	103.34	19	104.34±60	69	7.38±42		101.26±61	33
Zygo-Frontal....	73.39	19	73.71	24	74.49	33	71.00	16	74.19	16	72.07	23	73.34±23	132	3.90±16		75.82±31	60
Facial Index....	83.90	5	89.25	8	90.33	23	89.29	14	83.87	8	82.50	19	87.03±49	77	6.36±35		89.20±52	33
Upper Facial....	51.03	15	52.37	23	54.25	32	53.33	18	50.82	9	49.54	24	52.19±25	120	3.98±17		53.43±26	57
Nasal Index.....	51.55	20	48.39	31	48.13	36	46.92	19	49.65	13	50.29	28	49.00±27	146	4.79±19		48.71±32	66
Left Orbital.....	83.54	22	84.07	30	82.56	33	84.50	15	80.82	12	82.50	24	83.03±34	137	5.98±24		87.40±51	58

TABLE II—Continued

Character		Type A		Type B		Type D		Type F		Type E		Type C		Total Series Males: Mainland Greece					Females			
		M	N	M	N	M	N	M	N	M	N	M	N	M	p. e.	N	σ	p. e.	V	p. e.	M	p. e.
Right Orbital....		81.9	*	84.3	*	83.3	*	83.2	*	80.6	*	81.6	*	82.7	*	*					86.4	*
Interorbital....		22.18	23	21.64	31	22.04	31	22.05	15	22.12	15	22.02	24	21.97 \pm .11	139	1.91 \pm .08				22.32 \pm .21	53	
Extern. Palatal....		119.30	20	114.80	20	117.43	27	118.62	16	118.64	7	121.28	18	118.05 \pm .45	111	7.00 \pm .32				117.02 \pm .76	50	
Mandibular.....		83.2	*	86.6	*	83.5	*	86.4	*	83.4	*	82.8	*	84.4	*	*					84.3	*
Mean σ of Vault Indices.....		3.37	44.3	3.26	48.3	3.36	40.5	2.53?	17.2	3.21	23.2	3.23	32.8	3.80	206.3					3.69	102.5	
Mean σ of Facial Indices.....		(5.61)	14.6	5.31?	19.4	4.59	28.4	(4.64)	14.9	(4.25)	10.9	5.05	22.1	5.36	110.9					4.69	50.1	
Stature in cm.		163.43	7	161.26	4	163.85	14	162.37	6	161.85	3	159.62	13	162.19	61					153.35	43	
(Pearson formula)																						
Headform.....		Pentagonoid.		Pentagonoid.		Ellipsoid and Ovoid.		Byrsoid.		Varied.		Ovoid, Sphenoid, Spheroid Medium.		Ovoid—Pentagonoid—Ellipsoid. Medium—(Large).								
Browridges.....		Large.		Small (—Medium).		Large		Medium.		Medium.		Broad forehead.		Lowish forehead, with little slope, small bosses.								
Frontal		Low, sloping forehead, constricted, Sm. bosses.		Low, erect forehead: narrow.		Sloping forehead, median ridge.		Sloping forehead: much constricted.		High, erect, wide forehead: no constriction, Big bosses.		Well-filled. Obelion flat.		Well-filled. Not well-filled. Medium—Large. Medium curve. V. weak lambdoid flattening. Medium—Small torus.								
Parietal		Crested.		Big bosses.		Weak bosses.		Well-filled.		Obelion flat.		Well-filled. Bulging.		Well-filled. Not well-filled. Medium—Large.								
Temporal		Flattened.		Flattened.		Flattened.		Medium.		Well-filled.		Well-filled.		Medium—Large.								
Mastoids		Large.		Medium.		Large.		Medium.		Smallish.		Medium.		Medium curve. V. weak lambdoid flattening. Medium—Small torus.								
Occipital		Well-curved.		Sharp bend.		Medium.		Slight bend.		Medium curve.		Flat curve. Big torus.		Medium—Small torus.								
Base		Sl. lambdoid flattening.		High basion.		Big torus.		High basion.		Rounded and. meatus.		Lowish basion.										
		Low basion.		Thin tympan. plate.		Deep glenoid fossa, big p. gl. process.		Shallow gl. fossa.		Rounded and. meatus.		Lowish basion.										
Orbits		Oblong.		Square and horizontal.		Drooping.		Rhomboid, sloping.		Rhomboid.		Medium.										

Malars	Large.	Small and compressed. Slight.	Large and slab like. Medium.	Large and flaring. Slight.	Weak laterally. Medium.	Prominent laterally. Medium.	Medium size and projection.
Nasion depr.	Marked.	Low root and weak spine.	High root and bridge: concavo-conver.	Narrow nose, with classic profile.	Low-bridged nose, with high root.	Lowish and concave: variable.	Small—Medium. High, relatively narrow, chiefly concavo-convex profile.
Nose	Coarse: Straight, and Weak spine.	Slight alveolar prognathism.	Big spine. High-arched.	High, with crowded teeth.	Lowish.	Low.	High—medium roof, and mostly parabolic shape.
Palate	Square.	Compressed, small jaw. Median chin. Overbite.	Rugged, big jaw. Bilateral chin.	Everted angles	Weak jaw. Overbite.	Strong chin. Edge-to-edge bite. Worn teeth.	Broad jaw. Medium—small projection of chin and gonial angles.
Jaw	Strong chin. Everted angles.	23.14%	18.43%	7.84%	10.98%	16.08%	100.00%
Occurrence in total series of males	23.53%	26.25%	10.62%	6.87%	14.38%	17.50%	100.00%
Occurrence in females and children	24.38%	15.38%	11.54%	19.23%	11.54%	30.77%	100.00%
Early Iron Age males	11.54%	20.70%	27.58%	3.45%	13.80%	12.07%	100.00%
Occurrence in Classical males	22.40%	27.78%	5.55%	11.12%	11.11%	22.22%	100.00%
Occurrence in Early Iron Age females and children	22.22%	33.34%	13.33%	10.00%	6.67%	23.33%	100.00%
Classic females and children	13.33%						

¹ Measurements, indices, and morphological characteristics which differ significantly from those of the total series of males are italicized. Statistical significance is here taken to be three times the probable error of the difference between the morphological subgroup and total group means. This probable error is determined from the σ of the total series and N of the subgroup for each character.

* Excluding Frontal, Parietal, and Occipital Arcs and Chords.

* Excluding Right Orbital diameters, Minimum Breadth of the Ascending Ramus, and Corpus Thickness of the Mandible.

TABLE III

Comparison of Olynthian with other Greek cranial series

Character	Central Greece		Central Greece								Macedonia	
	Athens, Eleusis, Marathon, Corinth, Asine		Olynthus, Rhitsona, Thespieae, Tanagra, Athens, Menidi, Kouvara, Corinth								Olynthus	
	Submycenaean-Geometric		Classical up to Roman Period								Early 4th century	
	ca. 1100 to 650 B. C.		after 650 to 150 B. C.								400-348 B. C.	
	M	N	M	p. e.	N	σ	p. e.	V	p. e.	M	N	
Horiz. Circumf.....	518.15	18	520.12 \pm 1.33	48	13.62 \pm .93	2.62 \pm .18				529.00	4	
Sagittal Arc.....	374.18	19	375.38 \pm 1.06	45	10.50 \pm .75	2.80 \pm .20				373.00	3	
Frontal Arc.....	128.98	21	126.54 \pm .65	50	6.78 \pm .46	5.36 \pm .36				(127.25)	4	
Parietal Arc.....	126.68	23	129.64 \pm .60	51	6.36 \pm .42	4.91 \pm .33				(134.50)	4	
Occipital Arc.....	117.68	22	119.56 \pm .69	40	6.44 \pm .49	5.39 \pm .41				(114.75)	4	
Transverse Arc.....	308.76	23	309.50 \pm 1.05	44	10.28 \pm .74	3.32 \pm .24				317.00	4	
Length	183.96	25	186.65 \pm .57	57	6.41 \pm .40	3.43 \pm .22				189.50	4	
Breadth.....	141.76	25	140.68 \pm .41	56	4.54 \pm .29	3.23 \pm .21				142.25	4	
Basion Brg. Ht.	133.73	22	133.04 \pm .54	49	5.59 \pm .38	4.20 \pm .29				137.67	3	
Auricular Ht.	115.88	25	116.18 \pm .38	55	4.22 \pm .27	3.63 \pm .29				119.25	4	
Minimum Frontal..	95.26	19	96.61 \pm .47	51	5.01 \pm .33	5.19 \pm .35				95.25	4	
Maximum Frontal..	119.50	18	118.55 \pm .62	43	6.00 \pm .44	5.06 \pm .37				(123.00)	4	
Frontal Angle.....	50.45	20	50.00 \pm .37	38	3.34 \pm .26					53.50	4	
Frontal Chord.....	113.76	19	112.36 \pm .58	41	5.46 \pm .41	4.86 \pm .36				(110.50)	4	
Parietal Chord.....	114.42	23	116.08 \pm .56	42	5.42 \pm .40	4.67 \pm .56				(124.25)	4	
Occipital Chord....	97.64	21	98.08 \pm .60	34	5.20 \pm .43	5.30 \pm .43				(97.50)	4	
Basion-Nasion.....	100.42	19	101.11 \pm .48	44	4.75 \pm .34	4.70 \pm .34				107.00?	2	
Basion-Prosthion...	94.81	16	96.21 \pm .66	33	5.59 \pm .46	5.81 \pm .48				(109.00)	1	
Facial Angle.....	87.06	17	86.93 \pm .47	29	3.74 \pm .33					86.67	3	
Midfacial Angle....	93.32	17	93.74 \pm .40	29	3.22 \pm .29					(94.67)	3	
Alveolar Angle.....	68.24	16	69.54 \pm .97	29	7.74 \pm .69					(68.00)	3	
Bizygomatic.....	132.53	19	131.48 \pm .63	29	5.04 \pm .45	3.83 \pm .34				134.66	3	
Bigonial.....	100.26	17	102.88 \pm .84	16	4.96 \pm .59	4.82 \pm .57				103.50	4	
Face Height.....	113.34	19	115.98 \pm 1.03	19	6.68 \pm .73	5.76 \pm .63				109.66	3	
Upper Face Ht.	68.00	19	68.56 \pm .52	36	4.66 \pm .37	6.80 \pm .54				63.66	3	
Nose Height.....	50.25	20	50.84 \pm .36	37	3.27 \pm .26	6.43 \pm .50				47.67	3	
Nose Breadth.....	24.35	20	24.77 \pm .21	35	1.88 \pm .15	7.59 \pm .61				25.66	3	
Nasalia Angle.....	55.50	14	55.66 \pm .95	24	6.92 \pm .67					(65.00)	3	
Upper Nasalia.....	13.16	19	12.28 \pm .26	43	2.55 \pm .19	20.77 \pm 1.51				10.67	3	
Lower Nasalia.....	18.17	12	17.28 \pm .25	18	1.56 \pm .18	9.03 \pm 1.02				16.00	2	
Orbit Height, L.....	32.16	19	32.89 \pm .21	37	1.87 \pm .15	5.69 \pm .45				32.00	2	
Orbit Height, R.....	32.70	20	32.81 \pm .20	36	1.79 \pm .14	5.46 \pm .43				30.33	3	
Orbit Br., L.....	39.12	17	39.71 \pm .21	35	1.88 \pm .15	4.73 \pm .38				40.00	2	
Orbit Br., R.....	39.47	19	39.92 \pm .21	37	1.86 \pm .15	4.66 \pm .37				39.67	3	
Interorbital.....	22.18	17	21.46 \pm .23	39	2.09 \pm .16	9.74 \pm .74				22.00	2	
Biorbital.....	98.06	18	99.19 \pm .41	31	3.38 \pm .29	3.41 \pm .29				99.25	4	
Palate Length.....	53.22	18	53.96 \pm .36	27	2.76 \pm .25	5.11 \pm .47				54.00	2	
Palate Breadth.....	63.92	13	63.71 \pm .48	24	3.48 \pm .34	5.46 \pm .53				65.50	2	

TABLE III—Continued

Character	Central Greece		Central Greece								Macedonia	
	Athens, Eleusis, Marathon, Corinth, Asine		Olynthus, Rhitsona, Thespieae, Tanagra, Athens, Menidi, Kouvara, Corinth								Olynthus	
	Submycenaean-Geometric ca. 1100 to 650 B. C.		Classical up to Roman Period after 650 to 150 B. C.								Early 4th century 400-348 B. C.	
	M	N	M	p. e.	N	σ	p. e.	V	p. e.		M	N
Symphysis Ht.....	32.61	23	32.17 \pm .36	.24	24	2.62 \pm .26	.47	5.11 \pm .47			31.00	3
Jaw Length.....	103.64	14	104.66 \pm 1.50	.12	12	7.88 \pm 1.06	1.01	7.34 \pm 1.01			(101.50)	4
Bicondylar Br.....	127.26	13	123.22 \pm 1.42	.11	11	7.00 \pm .96	.78	5.68 \pm .78			(125.00)	4
Jaw Angle.....	122.62	18	124.78 \pm .91	.22	22	6.36 \pm .65					122.50	4
Min. Ramus Br.....	32.41	22	31.36 \pm .35	.25	25	2.57 \pm .25	.78	8.20 \pm .78			32.50	4
Thickness Corpus...	14.95	20	15.21 \pm .22	.24	24	1.63 \pm .16	1.04	10.72 \pm 1.04			16.75	4
Mean V of Vault ² ...	3.86	21.3	3.82		49.2						—	
Mean V of Face ³	6.03?	17.6	6.02		27.8						—	
Mean σ of Angles...	5.09?	17.0	5.22		28.5						—	
Cranial Index.....	77.29	18	75.48 \pm .32	.56	56	3.51 \pm .22					75.12	4
Height-Length.....	73.00	22	71.50 \pm .34	.49	49	3.49 \pm .24					72.12	3
Breadth-Height.....	94.07	21	94.60 \pm .42	.49	49	4.35 \pm .30					97.92	3
Length-Auric. Ht....	62.79	24	62.24 \pm .25	.54	54	2.69 \pm .17					62.93	4
Breadth-Aur. Ht....	81.87	24	82.59 \pm .27	.54	54	2.96 \pm .19					83.83	4
Fronto-Parietal.....	67.50	19	68.60 \pm .35	.50	50	3.71 \pm .25					67.10	4
Transv. Frontal.....	79.7	*	81.5		*						(77.4)	*
Frontal Curve.....	88.2	*	88.8		*						(86.8)	*
Parietal Curve.....	90.3	*	89.5		*						(92.6)	*
Occipital Curve.....	83.0	*	82.0		*						(85.0)	*
Cranio-Facial.....	92.56	18	92.36 \pm .34	.29	29	2.75 \pm .24					94.82	3
Zygo-Gonial.....	75.77	15	78.06 \pm .75	.16	16	4.44 \pm .53					75.96?	4
Fronto-Gonial.....	106.00	14	105.25 \pm .95	.16	16	5.64 \pm .67					108.81	4
Zygo-Frontal.....	72.50	16	73.57 \pm .58	.29	29	4.65 \pm .41					70.01?	4
Facial Index.....	85.62	17	88.74 \pm .94	.17	17	5.77 \pm .67					81.50	3
Upper Facial.....	51.15	17	52.57 \pm .51	.27	27	3.95 \pm .36					46.46	3
Nasal Index.....	48.50	19	48.96 \pm .56	.35	35	4.95 \pm .40					54.00	3
Left Orbital.....	83.56	17	83.11 \pm .53	.36	36	4.69 \pm .37					81.27	2
Right Orbital.....	82.8	*	82.2		*						76.54?	3
Interorbital.....	22.6	*	21.6		*						22.31	2
Extern. Palatal.....	116.75	*	117.85 \pm .90	.23	23	6.42 \pm .64					121.10	2
Mandibular.....	81.4	*	84.9		*						(81.2)	*
Mean σ Vault I.....	3.84	22.3	3.45		51.7						—	
Mean σ Face I.....	5.06?	16.1	4.81		25.3						—	
Stature in cm..... (Pearson formula)	161.08	14	165.38		10						164.56	3

¹ Measurements in parentheses are uncertain, and not valid statistically.

² Excluding Frontal, Parietal, and Occipital Arcs and Chords.

Excluding Right Orbital diameters, Minimum Breadth of Ascending Ramus, and Corpus Thickness of Mandible.

TABLE IV

Seven comparative series of crania from Europe and the Eastern Mediterranean to show the similarities underlying the varied effects of combination of different Mediterranean and Alpine groups to produce a Mixed Alpine tendency. Two series, from Carinthia and from Egypt, respectively, to show the effect of numerical dominance of Alpine and of Mediterranean crania in such a combination.

	1	2	3	4	5	6	7	8	9
	N. E. Balkans	Great Britain	Bosnia Illyrians	Carniola Illyrians	Carinthia	Bessarabia	Ionio-Aeolia coast	Etruria	Lower Egypt
	Davetsakata, Kotia Dermen, Rust, Kibrat, N. Bulgaria, and Caucasian and Lipocani in E. Rumania	Various sites in Yorkshire	Various sites on Glasinac plateau, East of Sarajevo.	Magdalenaberg and Wagonsberg	Greifenberg	Scythians Various sites	Myrina, unspecified; "North of Smyrna," Aesoa, Hanai Tepe A	Marsiliana, Tarquinii, Chiusi, Faleria, Cerveteri, Cere, Città della Pieve, Orvieto, Saturnia	Cemetery just south of Gizel pyramids
	Neolithic to Chalcolithic	Bronze Age Round Barrow	Hallstatt to Roman	Hallstatt and LaTène	Modern	Iron Age	Classic to Hellenistic	Iron Age	26th-30th Dynasties
	ca. 3000 to 2000 B. C.	ca. 1800 to 1200 B. C.	After 500 B. C.	After 500 B. C.	17th-19th centuries	After 500 B. C.	550-0 B. C.	ca. 600-300 B. C.	600-200 B. C.
	Popov, Drončilor, Jaraoff, Pittard, Donici	Wright, quoted by Howells	Weisbach, Schwidetzky	Angel	Shapiro	Donici	Schumacher, Zaborowski, Virchow	Cipriani, Sergi, Angel	Pearson and Davies, Martin
	M	M	M	M	M	M	M	M	M
	N	N	N	N	N	N	N	N	N
Horiz. Circumf.....	520.88	532.70	525.0	528.59	517.92	380.14	529.68	525.57	518.66
Sagittal Arc.....	379.11	381.00	367.5	383.80	364.03	127.07	389.72	371.50	371.86
Frontal Arc.....	128.92		15	129.56	126.56	267		130.33	127.42
Parietal Arc.....	130.17			130.00	122.51	223		(120.33)	128.46
Occipital Arc.....	117.78			121.78	115.33	234		(125.00)	115.23
Transverse Arc.....	309.00		313.5	319.41	315.52	273	327.23	319.33	307.19
Length.....	182.23	187.23	183.5	188.53	178.26	277	188.12	185.28	185.34
Breadth.....	138.50	145.12	142.2	146.61	146.91	266	143.68	143.73	138.88
Basion-Bregma Ht.....	134.55	140.01	14	133.58	128.71	266	136.00	135.32	132.40
Auricular Height.....	(120.00)		105.8	118.39	18		116.47	116.67	113.43
Minimum Frontal.....	96.31	97.64	33	98.53	97.62	281	96.80	96.50	94.78
Maximum Frontal.....	119.32		99.2	123.96	15		120.81	118.75	8
Basion-Nasion.....	105.50	105.40	15	103.67	98.05	263	103.16	102.50	101.64
Basion-Prosthion.....	(107.00)	97.64	14	101.00	93.22	180	98.00	94.50	95.03
	6	15	9	7	4	10	6	4	2
	2)	14	7	7	10	4	4	2	832

Facial Angle.....	84.83	6	134.27	15	87.10	10	133.61	176	133.33	17	90.14?	7	87	1	85.81	795
Bizygomatic.....	127.96	12			111.0?	4					134.60	5	133.37	19	128.70	785
Bigonial.....	(125.33) ¹	3	119.88	26			69.32	192	68.00	—	98.25	4	(109	1)	93.67	220
Face Height.....	66.60	10	69.62	26			50.58	255	52.51	41?	120.80	5	114.80	5	70.41	845
Upper Face Ht.....	48.81	11	52.42	19			24.72	233	24.72	41?	69.77	13	70.50	18	51.65	898
Nose Height.....	23.72	11	24.89	18			33.38	247	31.88	42?	51.71	21	24.56	16	24.36	893
Nose Breadth.....	31.27	11					33.38	247	31.88	42?	33.13	22	32.00	2	33.83	888
Orbit Height.....	38.75	12					39.61	246	39.19	42?	40.52 ⁴	21	39.50?	4	38.40	886
Orbit Breadth.....	23.89	9							23.21	7			22.67	3		
Interorbital.....									97.67	6			98.33?	3		
Biorbital.....											32.00	5			32.03	191
Symphysis Ht.....	High	?	32.06	32							122.50	6	120	1	121.70	220
Jaw Angle.....	117.67	3														
Cranial Index.....	75.81	13	77.76	34	77.5	48	82.51	261	76.36	61	76.46	32	77.74	29	75.06	884
Length-Height.....	73.58	11	74.54	13			72.40	260	73.55	40	72.29	*	73.18	22	71.44	*
Breadth-Height.....	98.11	11	96.55	*			87.82	251	94.87	40	94.65	*	92.77	22	95.33	*
Length-Auric. Ht.....	63.67	2			58.0 ³	40					61.91 ³	*	62.97?	*	61.20	*
Breadth-Auric. Ht.....	85.12	2			74.1 ²	40					81.06 ³	*	81.17?	*	81.72	*
Pronto-Parietal.....	69.86	13	67.28	*	69.5	32	66.42	264	68.78	*	67.37	*	66.37	8	68.24	*
Cranio-Facial.....	92.39	*	92.52	*			90.82	176	94.62	*	93.68	*	92.45	19	92.67	*
Zygo-Gonial.....											72.99	*			73.93	*
Pronto-Gonial.....											101.50	*			98.83	*
Zygo-Frontal.....	75.27	*	72.79	*					72.69	*	71.92	*	72.13	3	73.64	*
Facial Index.....	(97.94	*)	90.27	15							89.75	*	85.80	5		
Upper Facial.....	52.05	*	52.67	15			52.26	132	50.85	17	51.83	*	53.06	18	54.71	*
Nasal Index.....	48.69	11	46.46	13			48.61	228	47.25	41	47.71	*	48.19	16	47.31	881
Orbital Index.....	80.70	*					84.32	241	81.89	42	81.76 ⁴	*	80.00?	2	83.06	876

¹ Measurements in parentheses must be regarded as statistically useless since based on too few and non-representative individuals of a series.

² Weisbach's auricular height is stated by Schwidetzky to be the same as the vertical (auricular-apex) measurement, No. 21 of Martin. But this seems doubtful, since many of the individual values listed by Weisbach are impossibly low.

³ Virchow likewise used the vertical height. Hence this mean is slightly lower than those of the author and probably than those of the Biometric School observers, here Wright and Pearson.

⁴ Schumacher and Virchow presumably measured orbital breadth from fronto-maxillare: the mean is higher than that obtained from dacryon.

TABLE V

Selected measurements and observations on a small sample¹ of males born in Olynthus (10), Polygyros (5), Hagios Nikolaos (4), Nikiti (3), Cassandranos (1), and Vavdas (1), all in Chalcidice, Macedonia.

Character	Value		Estimate on skull ²	Observation	Frequency	N
	M	N	M			
Age.....	37.88	24		Skin Color (unexposed) ³		24
Stature in cm.....	169.37	24		Pale.....	66.67%	
Span.....	175.57	24		Pink (No. 3 Von Luschan scale).....	20.83%	
Sitting Height.....	87.32	24		Brunet (Nos. 7-9).....	8.33%	
Shoulder Breadth.....	37.60	24		Swarthy (Nos. 10-11).....	4.17%	
Hip Breadth.....	29.81	24				
Relative Span.....	103.66	*		Hair Color.....		23
Relative Sitting Height.....	51.56	*		Black (No. 27 Fischer scale)....	8.70%	
Relative Shoulder Breadth.....	22.20	*		Dark Brown (Nos. 4-5).....	43.48%	
				Brown (Nos. 7-9).....	30.43%	
Horizontal Circumference.....	552.13	24		Golden-Brown (Nos. 11-16)....	4.35%	
Head Length.....	190.29	24	180 ²	Ash-Brown (Nos. 22-26).....	8.70%	
Head Breadth.....	146.71	24	135—	Golden (Nos. 17-19).....	4.35%	
Auricular Height.....	128.00	24	119	Red, Red-Brown, Ash.....	0	
Minimum Frontal.....	104.25	24	95			
Bizygomatic.....	138.75	24	129	Beard Color.....		23
Bigonial.....	107.54	24	98	Black.....	34.78%	
Face Height.....	122.78	23	117—	Dark Brown.....	26.09%	
Upper Face Height.....	73.48	23	72	Brown.....	13.04%	
Nose Height.....	54.21	24	52—?	Golden-Brown.....	13.04%	
				Ash-Brown.....	0	
Cephalic Index.....	76.96	24	75	Golden.....	13.04%	
Length-Height.....	67.23	24	66			
Breadth-Height.....	87.93	*	88	Eye Color.....		24
Fronto-Parietal.....	71.19	24	70	Dark Brown.....	4.17%	
Cephalo-Facial.....	94.67	24	95	Dark-Light Brown.....	8.33%	
Zygo-Gonial.....	77.51	*	76	Light Brown.....	8.33%	
Fronto-Gonial.....	102.96	24	103	Gray-Brown.....	25.00%	
Zygo-Frontal.....	75.13	*	74	Green-Brown.....	34.78%	
Facial.....	88.46	23	91	Blue-Brown.....	4.17%	
Upper Facial.....	52.97	23	56	Gray-Blue.....	8.33%	
Nasal Index.....	65.75	24	47??	Blue.....	8.33%	
				Gray, and Black.....	0	
Observation	Frequency	N				
Body Build.....		24		Iris structure.....		24
Linear.....	20.83%			Clear.....	8.33%	
Medium.....	66.67%			Rayed.....	41.67%	
Lateral.....	12.50%			Zoned.....	12.50%	
				Spotted.....	16.67%	
Nose Profile.....		24		Diffuse.....	12.50%	
Concave and snub.....	8.33%			Scalloped.....	8.33%	
Concave.....	33.33%					
Straight.....	37.50%			Eyebrow thickness.....		24
Convex.....	20.83%			Small.....	4.17%	
				Medium.....	54.17%	
Hair Form.....		24		Pronounced.....	41.76%	
Straight.....	41.67%					
Low Waves.....	45.83%					
Deep Waves.....	12.50%					

¹ The author was able to measure fifty-three males at Olynthus, with the valuable assistance of his wife as recorder. The majority of these were born in Northern Greece (Epirus, Thessaly, Macedonia, and Thrace), and a large minority in Turkey. Most, but not all, were measured in the early evening, after the close of archaeological and agricultural labor for the day: hence the stature and sitting height means are low rather than high.

² These estimates are from 0.5 to 1.0% larger than would result from the usual reconstruction formulae, since the men were measured in June and were generally not fleshy. In any case such reconstruction has no objective validity.

³ No skin or hair color scales were available to the author in the field: the listed categories were determined subjectively, therefore.

CONCORDANCE OF EXCAVATION NUMBERS AND CATALOGUE NUMBERS

1931

<i>Exc. No.</i>	<i>Cat. No.</i>	<i>Exc. No.</i>	<i>Cat. No.</i>	<i>Exc. No.</i>	<i>Cat. No.</i>
1	305	41	84	81	167
2	275	42	263	82	166
3	516	43	257	83	157
4	426	44	255	84	158
5	425	45	254	85	173
6	512	46	265	86	134
6A	513	47	115	87	287
7	292	48	267	88	288
8	162	49	268	89	160
9	163	50	251	90	126
10	511	51	269	91	125
11	280	52	278	92	154
12	519	53	283	93	124
13	514	54	284	94	123
14	515	55	282	95	247
15	525	56	314	96	174
16	164	57	315	97	191
17	291	58	313	98	192
18	521	59	312	99	171
19	261	60	250	100	569
20	524	61	249	100	570
21	520	62	206	101	595
22	189	63	245	102	586
23	274	64	236	103	563
24	216	65	244	104	575
25	238	66	204	105	593
26	260	67	248	106	592
27	159	68	242	107	577
28	185	69	109	108	534
29	272	70	203	109	574
30	266	71	178	110	587
31	289	72	219	111	588
32	264	73	240	112	559
33	246	74	97	113	573
34	172	75	237	114	566
35	205	76	239	115	578
36	108	77	175	116	170
37	107	78	176	117	169
38	259	79	177	118	280
39	241	79	177A	119	168
40	271	80	243	120	165

EXCAVATIONS AT OLYNTHUS

<i>Exc. No.</i>	<i>Cat. No.</i>	<i>Exc. No.</i>	<i>Cat. No.</i>	<i>Exc. No.</i>	<i>Cat. No.</i>
121	210	161	213	202	286
122	193	162	214	203	276
123	211	163	218	204	118
124	195	164	83	205	279
125	194	165	85	206	285
126	211	166	217	207	253
127	110	167	111	208	523
128	116	168	112	209	101
129	127	169	152	210	161
130	92	170	153	211	522
131	94	171	150	212	184
132	93	172	149	213	201
133	91	173	148	214	188
134	102	174	145	215	252
135	103	175	156	216	270
135	104	176	146	217	277
136	202	177	119	218	105
137	99	178	117	219	86
138	100	179	114	220	151
139	90	180	113	221	594
140	98	181	143	222	591
141	319	182	121	223	568
142	95	183	155	224	120
143	96	184	142	224	567
144	215	185	144	225	562
145	87	186	140	226	581
146	88	187	139	227	258
147	89	188	138	227	560
148	80	189	137	228	256
149	81	190	135	228	580
150	65	191	141	229	579
151	64	192	186	230	585
152	63	193	187	231	576
153	62	194	106	232	590
154	61	195	197	233	589
155	60	196	198	234	561
156	207	197	200	235	571
157	208	198	196	236	572
158	209	199	122	237	564
159	190	200	281	238	565
160	212	201	262		

1934

<i>Exc. No.</i>	<i>Cat. No.</i>	<i>Exc. No.</i>	<i>Cat. No.</i>	<i>Exc. No.</i>	<i>Cat. No.</i>
1	322	4	327	7	295
2	323	5	328	8	179
3	324	6	147	9	332

<i>Exc. No.</i>	<i>Cat. No.</i>	<i>Exc. No.</i>	<i>Cat. No.</i>	<i>Exc. No.</i>	<i>Cat. No.</i>
10	326	59	222	107	47
11	310	60	307	108	132
12	338	61	308	109	131
13	296	62	299	110	44
14	339	63	235	111	129
15	183	64	229	112	130
16	180	65	199	113	51
17	311	66	294	114	22
18	321	67	230	115	17
19	320	68	293	116	23
20	181	69	306	117	11
21	337	70	273	118	24
22	336	71	234	119	25
23	325	72	363	120	15
24	334	73	365	121	10
25	333	74	366	122	12
26	316	75	32	123	59
27	309	76	52	124	57
28	228	77	136	125	232
29	182	78	370	126	379
30	329	79	37	127	367
31	331	80	42	128	13
32	330	81	40	129	8
33	224	82	368	130	9
34	528	83	371	131	26
35	527	84	43	132	28
36	223	85	45	133	18
37	526	86	46	134	373
38	225	87	48	135	344
39	362	88	49	136	36
40	346	89	50	137	70
41	300	90	41	138	71
42	302	91	29	139a	350
43	297	91	29 A	139b	348
44	364	92	56	140	66
45	361	93	35	141	67
46	369	94	33	142	69
47	231	95	39	143	82
48	372	96	38	144	30
49	221	97	128	145	7
50	233	98	133	146	6
51	304	99	21	147	68
52	303	100	53	148	34
53	301	101	54	149	79
54	298	102	55	150	14
55	343	103	31	151	20
56	226	104	27	152	4
57	220	105	58	153	2
58	227	106	16	154	3

<i>Exc. No.</i>	<i>Cat. No.</i>	<i>Exc. No.</i>	<i>Cat. No.</i>	<i>Exc. No.</i>	<i>Cat. No.</i>
155	5	161	77	167	317
156	19	162	74	168	78
157	345	163	360	169	75
158	349	164	1	170	73
159	347	165	76	171	72
160	351	166	318		

1938

<i>Exc. No.</i>	<i>Cat. No.</i>	<i>Exc. No.</i>	<i>Cat. No.</i>	<i>Exc. No.</i>	<i>Cat. No.</i>
1	517	39	381	77	439
2	518	40	404	78	434
3	352	41	418	79	435
4	355	42	416	80	436
5	359	43	417	81	374
6	342	44	415	82	438
7	341	45	405	83	450
8	354	46	401	84	450
9	356	47	408	85	458
10	358	48	406	86	454
11	357	49	409	87	453
12	353	50	413	88	452
13	340	51	414	89	508
14	335	52	410	90	510
15	380	53	400	91	509
16	378	54	412	92	451
17	385	55	411	93	507
18	382	56	388	94	505
19	480	57	399	95	447
20	471	58	398	96	464
21	420	59	407	97	473
22	421	60	396	98	465
23	422	61	397	99	449
24	469	62	389	100	466
25	470	63	391	101	462
26	423	64	392	102	446
27	424	65	390	103	463
28	479	66	394	104	496
29	383	67	393	105	495
30	419	68	395	106	460
31	468	69	377	107	499
32	467	70	376	108	504
33	402	71	375	109	503
34	403	72	430	110	445
35	444	73	429	111	502
36	387	74	431	112	442
37	386	75	432	113	443
38	384	76	433	114	474

<i>Exc. No.</i>	<i>Cat. No.</i>	<i>Exc. No.</i>	<i>Cat. No.</i>	<i>Exc. No.</i>	<i>Cat. No.</i>
115	456	127	498	139	457
116	506	128	490	140	477
117	496	129	492	141	472
118	494	130	487	142	440
119	459	131	486	143	427
120	441	132	476	144	484
121	458	133	488	145	482
122	493	134	489	146	478
123	461	135	485	147	481
124	428	136	491	148	483
125	501	137	475		
126	500	138	455		

NORTH CEMETERY

<i>Exc. No.</i>	<i>Cat. No.</i>	<i>Exc. No.</i>	<i>Cat. No.</i>	<i>Exc. No.</i>	<i>Cat. No.</i>
1	549	11	547	21	537
2	550	12	548	22	538
3	551	13	529	23	540
4	557	14	530	24	539
5	556	15	531	25	541
6	555	16	533	26	543
7	554	17	532	27	542
8	553	18	534	28	544
9	558	19	535	29	545
10	546	20	536	30	552

CONCORDANCE OF FINAL CATALOGUE NUMBERS AND PRELIMINARY EXCAVATION NUMBERS

The letters *a* and *d* prefixed to excavation numbers indicate the seasons of 1934 and 1938, respectively. Graves excavated in 1931 have no preceding letter; there were no graves discovered during the first campaign in 1928.

RIVERSIDE CEMETERY

<i>Cat. Num.</i>	<i>Exc. Num.</i>	<i>Cat. Num.</i>	<i>Exc. Num.</i>	<i>Cat. Num.</i>	<i>Exc. Num.</i>
1	a- 164	37	a- 79	74	a- 162
2	a- 153	38	a- 96	75	a- 169
3	a- 154	39	a- 95	76	a- 165
4	a- 152	40	a- 81	77	a- 161
5	a- 155	41	a- 90	78	a- 168
6	a- 146	42	a- 80	79	a- 149
7	a- 145	43	a- 84	80	148
8	a- 129	44	a- 110	81	149
9	a- 130	45	a- 85	82	a- 143
10	a- 121	46	a- 86	83	164
11	a- 117	47	a- 107	84	41
12	a- 122	48	a- 87	85	165
13	a- 128	49	a- 88	86	219
14	a- 150	50	a- 89	87	145
15	a- 120	51	a- 113	88	146
16	a- 106	52	a- 76	89	147
17	a- 115	53	a- 100	90	139
18	a- 133	54	a- 101	91	133
19	a- 156	55	a- 102	92	130
20	a- 151	56	a- 92	93	132
21	a- 99	57	a- 124	94	131
22	a- 114	58	a- 105	95	142
23	a- 116	59	a- 123	96	143
24	a- 118	60	155	97	74
25	a- 119	61	154	98	140
26	a- 131	62	153	99	137
27	a- 104	63	152	100	138
28	a- 132	64	151	101	209
29	a- 91	65	150	102	134
29A	a- 91	66	a- 140	103	135
30	a- 144	67	a- 141	104	135
31	a- 103	68	a- 147	105	218
32	a- 75	69	a- 142	106	194
33	a- 94	70	a- 137	107	37
34	a- 148	71	a- 138	108	36
35	a- 93	72	a- 171	109	69
36	a- 136	73	a- 170	110	127

<i>Cat. Num.</i>	<i>Exc. Num.</i>	<i>Cat. Num.</i>	<i>Exc. Num.</i>	<i>Cat. Num.</i>	<i>Exc. Num.</i>
111	167	160	89	208	157
112	168	161	210	209	158
113	180	162	8	210	121
114	179	163	9	211	123
115	47	164	16	212	160
116	128	165	120	213	161
117	178	166	82	214	162
118	204	167	81	215	144
119	177	168	119	216	24
120	224	169	117	217	166
121	182	170	116	218	163
122	199	171	99	219	72
123	94	172	34	220	a- 57
124	93	173	85	221	a- 49
125	91	174	96	222	a- 59
126	90	175	77	223	a- 36
127	129	176	78	224	a- 33
128	a- 97	177	79	225	a- 38
129	a- 111	177A	79	226	a- 56
130	a- 112	178	71	227	a- 58
131	a- 109	179	a- 8	228	a- 28
132	a- 108	180	a- 16	229	a- 64
133	a- 98	181	a- 20	230	a- 67
134	86	182	a- 29	231	a- 47
135	190	183	a- 15	232	a- 125
136	a- 77	184	212	233	a- 50
137	189	185	28	234	a- 71
138	188	186	192	235	a- 63
139	187	187	193	236	64
140	186	188	214	237	75
141	191	189	22	238	25
142	184	190	159	239	76
143	181	191	97	240	73
144	185	192	98	241	39
145	174	193	122	242	68
146	176	194	125	243	80
147	a- 6	195	124	244	65
148	173	196	198	245	63
149	172	197	195	246	33
150	171	198	196	247	95
151	220	199	a- 65	248	67
152	169	200	197	249	61
153	170	201	213	250	60
154	92	202	136	251	50
155	183	203	70	252	215
156	175	204	66	253	207
157	83	205	35	254	45
158	84	206	62	255	44
159	27	207	156	256	228

<i>Cat. Num.</i>	<i>Exc. Num.</i>	<i>Cat. Num.</i>	<i>Exc. Num.</i>	<i>Cat. Num.</i>	<i>Exc. Num.</i>
257	43	306	a- 69	355	d- 4
258	227	307	a- 60	356	d- 9
259	38	308	a- 61	357	d- 11
260	26	309	a- 27	358	d- 10
261	19	310	a- 11	359	d- 5
262	201	311	a- 17	360	a- 163
263	42	312	59	361	a- 45
264	32	313	58	362	a- 39
265	46	314	56	363	a- 72
266	198	315	57	364	a- 44
267	48	316	a- 26	365	a- 73
268	49	317	a- 167	366	a- 74
269	51	318	a- 166	367	a- 127
270	216	319	141	368	a- 82
271	40	320	a- 19	369	a- 46
272	29	321	a- 18	370	a- 78
273	a- 70	322	a- 1	371	a- 83
274	23	323	a- 2	372	a- 48
275	2	324	a- 3	373	a- 134
276	203	325	a- 23	374	d- 81
277	217	326	a- 10	375	d- 71
278	52	327	a- 4	376	d- 70
279	205	328	a- 5	377	d- 69
280	118	329	a- 30	378	d- 16
281	200	330	a- 32	379	a- 126
282	55	331	a- 31	380	d- 15
283	53	332	a- 9	381	d- 39
284	54	333	a- 25	382	d- 18
285	206	334	a- 24	383	d- 29
286	202	335	d- 14	384	d- 38
287	87	336	a- 22	385	d- 17
288	88	337	a- 21	386	d- 37
289	31	338	a- 12	387	d- 36
290	11	339	a- 14	388	d- 56
291	17	340	d- 13	389	d- 62
292	7	341	d- 7	390	d- 65
293	a- 68	342	d- 6	391	d- 63
294	a- 66	343	a- 55	392	d- 64
295	a- 7	344	a- 135	393	d- 67
296	a- 13	345	a- 157	394	d- 66
297	a- 43	346	a- 40	395	d- 68
298	a- 54	347	a- 159	396	d- 60
299	a- 62	348	a- 139 ^b	397	d- 61
300	a- 41	349	a- 158	398	d- 58
301	a- 53	350	a- 139 ^a	399	d- 57
302	a- 42	351	a- 160	400	d- 53
303	a- 52	352	d- 3	401	d- 46
304	a- 51	353	d- 12	402	d- 33
305	1	354	d- 8	403	d- 34

<i>Cat. Num.</i>	<i>Exc. Num.</i>	<i>Cat. Num.</i>	<i>Exc. Num.</i>	<i>Cat. Num.</i>	<i>Exc. Num.</i>
404	d- 40	446	d- 102	488	d- 133
405	d- 45	447	d- 95	489	d- 134
406	d- 48	448	d- 85	490	d- 128
407	d- 59	449	d- 99	491	d- 136
408	d- 47	450	d- 84	492	d- 129
409	d- 49	451	d- 92	493	d- 122
410	d- 52	452	d- 88	494	d- 118
411	d- 55	453	d- 87	495	d- 105
412	d- 54	454	d- 86	496	d- 104
413	d- 50	455	d- 138	497	d- 117
414	d- 51	456	d- 115	498	d- 127
415	d- 44	457	d- 139	499	d- 107
416	d- 42	458	d- 121	500	d- 126
417	d- 43	459	d- 119	501	d- 125
418	d- 41	460	d- 106	502	d- 111
419	d- 30	461	d- 123	503	d- 109
420	d- 21	462	d- 101	504	d- 108
421	d- 22	463	d- 103	505	d- 94
422	d- 23	464	d- 96	506	d- 116
423	d- 26	465	d- 98	507	d- 93
424	d- 27	466	d- 100	508	d- 89
425	5	467	d- 32	509	d- 91
426	4	468	d- 31	510	d- 90
427	d- 143	469	d- 24	511	10
428	d- 124	470	d- 25	512	6
429	d- 73	471	d- 20	513	6 A
430	d- 72	472	d- 141	514	13
431	d- 74	473	d- 97	515	14
432	d- 75	474	d- 114	516	3
433	d- 76	475	d- 137	517	d- 1
434	d- 78	476	d- 132	518	d- 2
435	d- 79	477	d- 140	519	12
436	d- 80	478	d- 146	520	21
437	horse	479	d- 28	521	18
438	d- 82	480	d- 19	522	211
439	d- 77	481	d- 147	523	208
440	d- 142	482	d- 145	524	20
441	d- 120	483	d- 148	525	15
442	d- 112	484	d- 144	526	a- 37
443	d- 113	485	d- 135	527	a- 35
444	d- 35	486	d- 131	528	a- 34
445	d- 110	487	d- 130		

NORTH CEMETERY

<i>Cat. Num.</i>	<i>Exc. Num.</i>	<i>Cat. Num.</i>	<i>Exc. Num.</i>	<i>Cat. Num.</i>	<i>Exc. Num.</i>
529	d- 13NC	532	d- 17NC	535	d- 19NC
530	d- 14NC	533	d- 16NC	536	d- 20NC
531	d- 15NC	534	d- 18NC	537	d- 21NC

<i>Cat. Num.</i>	<i>Exc. Num.</i>	<i>Cat. Num.</i>	<i>Exc. Num.</i>	<i>Cat. Num.</i>	<i>Exc. Num.</i>
538	d- 22NC	545	d- 29NC	552	d- 30NC
539	d- 24NC	546	d- 10NC	553	d- 8NC
540	d- 23NC	547	d- 11NC	554	d- 7NC
541	d- 25NC	548	d- 12NC	555	d- 6NC
542	d- 27NC	549	d- 1NC	556	d- 5NC
543	d- 26NC	550	d- 2NC	557	d- 4NC
544	d- 28NC	551	d- 3NC	558	d- 9NC

EAST CEMETERY

<i>Cat. Num.</i>	<i>Exc. Num.</i>	<i>Cat. Num.</i>	<i>Exc. Num.</i>	<i>Cat. Num.</i>	<i>Exc. Num.</i>
559	112	571	235	585	230
560	227EC	572	236	586	102
561	234	573	113	587	110
562	225	574	109	588	111
563	103	575	104	589	233
564	237	576	231	590	232
565	238	577	107	591	222
566	114	578	115	592	106
567	224EC	579	229	593	105
568	223	580	228EC	594	221
569	100	581	226	595	101
570	100	584	108		

MISCELLANEOUS

<i>Cat. Num.</i>	<i>Exc. Num.</i>	<i>Cat. Num.</i>	<i>Exc. Num.</i>	<i>Cat. Num.</i>	<i>Exc. Num.</i>
596	Grave on South Hill	597	Grave on North Hill	598	Chamber Tomb

INDEX OF FINDS

COINS

The coins found in 1931 are published in *Olynthus*, VI, and those from the 1934 excavations in *Olynthus*, IX. The 1938 coins are unpublished. The concordance for 1931 is based on the catalogue numbers assigned in *Olynthus*, VI; those for 1934 and 1938 are listed by their inventory numbers. References to *Olynthus*, IX, for the 1934 coins are given in the text.

1931

<i>Cat. No.</i>	<i>Grave No.</i>	<i>Cat. No.</i>	<i>Grave No.</i>	<i>Cat. No.</i>	<i>Grave No.</i>
41	165	244	593	418	83
72	426	245	523	431	103
73	426	246	523	434	288
74	425	253	514	518	246
75	425	254	514	610	157
85	185	255	592	611	288
97	164	256	592	612	160
121	200	257	592	614	127
139	110	333	200	615	127
172	242	363	242	616	127
173	242	364	175	617	103
174	242	365	175	618	103
176	425	366	175	619	103
177	593	377	134	622	213
178	593	378	134	625	145
192	211	379	134	626	144
195	305	384	218	702	288
221	305	385	156	703	134
222	305	390	200	712	157
223	305	391	110	766	110
236	426	397	426	835	592
237	425	409	200	948	92
238	512	416	288		
243	593	417	110		

1934

(Inv. 34. C. —)

<i>Inv. No.</i>	<i>Grave No.</i>	<i>Inv. No.</i>	<i>Grave No.</i>	<i>Inv. No.</i>	<i>Grave No.</i>
5	324	197	333	441	298
6	324	198	179	442	298
7	324	207	331	527	222
8	324	337	308	633	369
21	328	368	299	634	598
130	366	370	299	635	366

<i>Inv. No.</i>	<i>Grave No.</i>	<i>Inv. No.</i>	<i>Grave No.</i>	<i>Inv. No.</i>	<i>Grave No.</i>
636	366	977	56	1363	66
673	369	978	56	1370	26
674	369	979	56	1397	66
675	369	1075	55	1398	66
786	52	1078	55	1427	66
787	52	1079	55	1429	26
788	52	1196	27	1479	70
935	372	1207	44	1536	19
939	372	1248	70	1686	73
976	56	1355	7		

1938

(Inv. 38. C. —)

<i>Inv. No.</i>	<i>Grave No.</i>	<i>Inv. No.</i>	<i>Grave No.</i>	<i>Inv. No.</i>	<i>Grave No.</i>
28	553	172	421	238	411
29	553	173	421	239	411
147	352	174	421	240	411
165	335	186	402	251	389
170	421	237	411	313	375

LAMPS

Lamps found in 1931 are published in *Olynthus*, V; those from the excavations conducted in 1934 and 1938 are unpublished, and are referred to by inventory number.

1931

<i>Cat. No.</i>	<i>Grave No.</i>
56	210

1934

(Inv. 34. L. —)

<i>Inv. No.</i>	<i>Grave No.</i>
122	9

1938

(Inv. 38. L. —)

<i>Inv. No.</i>	<i>Grave No.</i>
11	404

METAL AND MINOR MISCELLANEOUS OBJECTS

These are listed by the catalogue numbers assigned in *Olynthus*, X. A few specimens which were not published are listed under their respective inventory numbers.

<i>Cat. No.</i>	<i>Grave No.</i>	<i>Cat. No.</i>	<i>Grave No.</i>	<i>Cat. No.</i>	<i>Grave No.</i>
49	516	236	301	497	363
50	516	237	47	498	12
62	516	238	363	505	72
83	516	265	370	507	233
84	516	269	563	508	257
85	516	270	150	515	221
87	516	271	150	516	308
88	516	279	267	518	576
89	516	280	267	519	576
90	516	281	434	520	266
143	203	282	31	521	280
147	516	290	203	523	568
148	516	291	203	524	568
149	516	292	519	527	576
150	516	293	519	528	576
151	516	295	87	529	153
159	516	296	239	530	364
181	289	297	239	531	364
183	254	299	563	532	364
184	566	300	76	533	364
185	248	303	191	534	364
186	266	304	191	535	364
188	267	307	108	536	364
189	184	308	108	537	372
190	184	310	108	539	264
191	191	311	69	540	426
192	292	314	366	541	248
195	520	340	516	542	172
200	177	350	513	543	586
201	203	351	514	545	244
202	319	357	12	546	413
204	248	406	516	547	350
205	200	427	177	548	350
207	69	459	223	549	348
209	343	460	295	550	348
210	301	462	380	551	348
215	343	468	4	552	348
217	298	474	254	553	348
220	343	484	325	554	348
221	273	485	365	555	348
222	299	486	71	556	226
225	295	493	363	557	226
226	516	494	363	558	302
227	570	495	247	559	227

<i>Cat. No.</i>	<i>Grave No.</i>	<i>Cat. No.</i>	<i>Grave No.</i>	<i>Cat. No.</i>	<i>Grave No.</i>
560	21	930	311	1496	563
561	229	931	221	1497	563
562	311	932	327	1498	563
563	91	933	327	1499	563
564	110	934	273	1500	563
565	257	935	428	1530	264
566	145	951	389	1531	264
567	182	1299	213	1532	264
568	11	1308	193	1540	403
569	419	1320	157	1758	428
583	364	1465	264	2165	348
592	156	1466	264	2471	100
700	83	1467	264	2561	266
838	516	1468	264	2565	91
839	319	1469	264	2657	439
873	597	1470	264	2664	439
903	264	1471	264	2669	332
919	366	1472	264	2670	360
922	44	1493	589		
928	298	1494	584		

1931 INVENTORY OF BRONZES

(Inv. 31. B. —)

<i>Inv. No.</i>	<i>Grave No.</i>	<i>Inv. No.</i>	<i>Grave No.</i>	<i>Inv. No.</i>	<i>Grave No.</i>
81	516	135	585	146	387
112	514	138	576	363	108
129	289	139	587	610	269
130	289				

1934 INVENTORY OF METAL OBJECTS

(Inv. 34. B. —)

<i>Inv. No.</i>	<i>Grave No.</i>
385	364

1938 INVENTORY OF BRONZES

(Inv. 38. B. —)

<i>Inv. No.</i>	<i>Grave No.</i>
151	432

1934 INVENTORY OF MISCELLANEOUS OBJECTS

(Inv. 34. ms. —)

<i>Inv. No.</i>	<i>Grave No.</i>	<i>Inv. No.</i>	<i>Grave No.</i>	<i>Inv. No.</i>	<i>Grave No.</i>
7	332	21	5	38	36
8	366	32	69	39	36
9	307	33	31	40	273

1938 INVENTORY OF MISCELLANEOUS OBJECTS

(Inv. 38. ms. —)

Inv. No. Grave No.

92 341

POTTERY

Most of the pottery found in 1931 has been published in *Olynthus*, V, and that from the cemeteries is listed here under the catalogue numbers assigned in the publication. A few unpublished vases from the 1931 excavations and the vases found in 1934 and 1938, as yet unpublished, are listed under their inventory numbers.

1931

Cat. No.	Grave No.	Cat. No.	Grave No.	Cat. No.	Grave No.
2	275	478	266	953	568
3	516	494	591	954	572
6	107	496	568	958	591
28	263	497	60	966	560
29	289	498	591	974	571
31	107	501	116	975	260
32	314	509	244	976	159
33	315	537	170	978	272
81	589	543	83	981	425
105a	279	544	426	982	159
139	289	548	83	984	211
140	186	550	160	987	519
144	143	589	162	990	578
145	246	651	289	1004	162
153	585	719	562	1006	564
154	568	720	243	1007	590
201	264	726	513	1008	514
235	578	743	108	1009	591
248	563	745	568	1012	562
249	248	748	268	1014	592
251	591	748a	516	1015	87
400	587	772	169	1017	95
410	156	811	124	1018	89
413	561	835	126	1019	210
414	92	838	512	1020	154
416	272	839	104	1021	280
435	153	840	264	1022	112
437	108	859	143	1023	589
438	264	901	249	1063	111
464	513	902	192	1064	254
465	513	907	591	1065	266
466	561	915	104	1080	590
467	513	916	123	1082	567
469	513	946	289	1083	514
474	170	946a	516	1124	289
477	266	951	581		

1931 (unpublished)

(Inv. 31. P. —)

<i>Inv. No.</i>	<i>Grave No.</i>	<i>Inv. No.</i>	<i>Grave No.</i>	<i>Inv. No.</i>	<i>Grave No.</i>
235	170	514	157	647	170
426	253	641	60	674	202

1934

(Inv. 34. P. —)

<i>Inv. No.</i>	<i>Grave No.</i>	<i>Inv. No.</i>	<i>Grave No.</i>	<i>Inv. No.</i>	<i>Grave No.</i>
1	328	76	220	186	36
2	180	78	364	187	54
3	339	79	364	188	54
4	339	80	364	193	348
5	321	81	364	194	75
6	527	82	364	210	348
7	527	83	364	211	348
9	526	104	47	212	348
10	526	105	40	213	348
11	526	106	233	214	350
12	228	108	369	215	350
13	321	113	308	217	350
14	182	115	230	218	364
15	321	117	364	219	317
16	321	121	309	224	68
17	321	122	12	231	364
18	321	129	226	233	597
19	527	138	58	237	37
20	527	140	7	238	597
49	526	147	33	239	235
51	364	150	69	243	348
52	364	151	306	244	597
59	225	152	304	249	69
60	225	154	36	251	14
63	370	155	361	268	70
64	370	170	36	294	303
68	300	174	350	295	31
70	364	175	348	296	233
71	226	176	348	305	233
72	226	185	199		

<i>Inv. No.</i>	<i>Grave No.</i>	<i>Inv. No.</i>	<i>Grave No.</i>	<i>Inv. No.</i>	<i>Grave No.</i>
I- 1	306	I- 13	309	I- 23	364
I- 2	316	I- 14	7	I- 25	348
I- 5	364	I- 16	6	II- 1	343
I- 6	364	I- 20	348	III- 11	50
I- 7	364	I- 21	303	III- 12	36
I- 10	303	I- 22	303	III- 13	133

<i>Inv. No.</i>	<i>Grave No.</i>	<i>Inv. No.</i>	<i>Grave No.</i>	<i>Inv. No.</i>	<i>Grave No.</i>
IV- 3	364	VI- 20	362	VII- 5	230
IV- 5	234	VI- 21	47	VII- 7	74
IV- 8	74	VI- 22	56	IX- 7	7
IV- 9	74	VI- 27	7	XII- 1	50
IV- 10	306	VI- 28	36	XII- 3	36
V- 1	364	VI- 30	33	XIV- 2	309
V- 2	364	VI- 32	4	XIV- 6	72
V- 3	364	VI- 33	4	XIV- 7	76
V- 4	300	VI- 34	4	XIV- 8	72
V- 5	329	VI- 38	78	XIV- 9	72
V- 7	3	VI- 39	33	XIV- 10	72
V- 8	350	VI A- 2	221	XV- 4	234
V- 9	350	VI A- 5	36	XV A- 1	299
V- 10	350	VI A- 11	16	XV A- 2	366
VI- 1	221	VI A- 12	70	XV A- 3	294
VI- 2	233	VII- 1	307	XV A- 7	68
VI- 3	221	VII- 2	47	XV A- 8	31
VI- 4	233	VII- 3	47	XV A- 9	230
VI- 5	303	VII- 4	343		

1938

(Inv. 38. P. —)

<i>Inv. No.</i>	<i>Grave No.</i>	<i>Inv. No.</i>	<i>Grave No.</i>	<i>Inv. No.</i>	<i>Grave No.</i>
3	549	204	467	418	447
8	549	207	402	421	473
9	550	209	402	425	510
10	551	210	467	427	473
11	550	221	422	429	473
13	554	232	401	435	448
22	552	238	420	437	462
57	531	239	420	438	462
84	532	252	420	439	464
88	535	253	416	442	462
89	536	257	413	444	495
90	537	269	406	447	496
108	537	270	405	449	502
111	543	271	405	452	497
117	539	278	411	454	501
119	539	287	388	470	475
131	517	288	388	471	458
132	517	296	405	475	488
136	596	299	389	481	489
138	352	308	393	482	485
145	353	309	394	483	427
148	377	332	389	484	427
151	480	356	397	485	427
152	480	385	450	487	427
159	470	403	450	488	488
160	420	416	465	490	499
163	377	417	465	527	465

TERRACOTTAS

The terracottas found in 1931 are published in *Olynthus*, VII. The catalogue numbers assigned there are used in this concordance. Inventory numbers are used for the unpublished specimens from the 1934 and 1938 excavations, and for a few examples found in 1931, which were not included in Volume VII.

1931

<i>Cat. No.</i>	<i>Grave No.</i>	<i>Cat. No.</i>	<i>Grave No.</i>	<i>Cat. No.</i>	<i>Grave No.</i>
1	563	186	584	271	254
3	561	189	567	279	88
7	563	191	591	282	289
8	561	193	108	285	567
10	561	194	108	305	584
15	594	202	563	311	521
19	115	203	519	323	91
20	115	205	590	324	254
21	115	208	567	326	84
22	115	209	584	328	254
26	584	211	115	331	191
27	584	212	115	333	576
34	191	215	115	334	576
132	561	220	584	343	84
141	115	221	584	345	108
146	561	232	594	346	594
157	289	238	563	349	576
159	584	243	591	350	576
160	584	244	563	351	584
166	589	252	561	354	254
167	584	253	561	358	584
170	115	254	91	366	115
172	278	262	240	368	115
173	278	263	289	392	237
174	115	265	266	410	593
175	584	266	266		
183	584	267	254		

1931

(31. T. —)

<i>Inv. No.</i>	<i>Grave No.</i>	<i>Inv. No.</i>	<i>Grave No.</i>	<i>Inv. No.</i>	<i>Grave No.</i>
179	561	218	251	330	60
217	251	219	251	402	102

1934

(34. T. —)

<i>Inv. No.</i>	<i>Grave No.</i>	<i>Inv. No.</i>	<i>Grave No.</i>	<i>Inv. No.</i>	<i>Grave No.</i>
11	328	82	370	146	69
15	179	84	370	147	69
45	328	85	370	148	69
50	366	86	370	156	318
57	179	87	370	174	5
62	179	92	370	176	76
63	147	94	370	177	69
67	366	97	370	179	318
69	361	98	370	182	318
70	361	99	370	187	318
73	370	117	370	189	69
74	370	128	364	204	69
75	370	140	69	206	69
76	370	141	69	214	69
77	370	142	69	227	303
78	370	143	69	242	234
81	370	144	69	247	222

1938

(38. T. —)

<i>Inv. No.</i>	<i>Grave No.</i>	<i>Inv. No.</i>	<i>Grave No.</i>	<i>Inv. No.</i>	<i>Grave No.</i>
32	417	75	430	119	462
35	417	76	432	142	440
41	417	80	430	164	427
44	401	82	430		
49	412	107	510		

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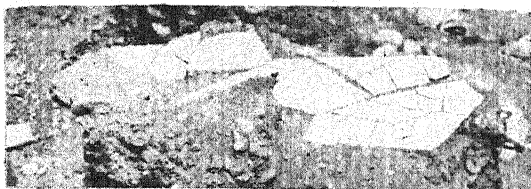
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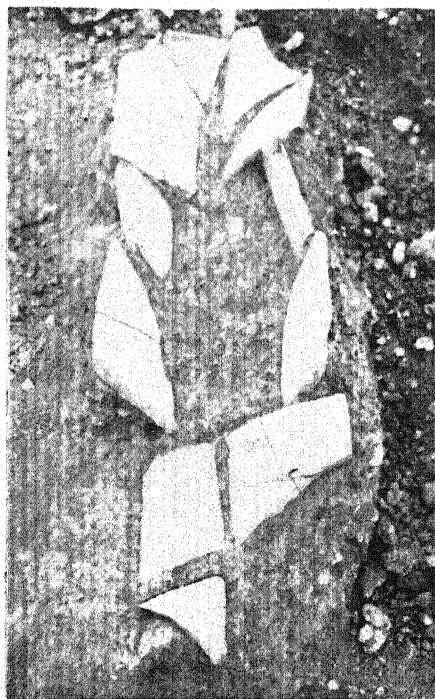
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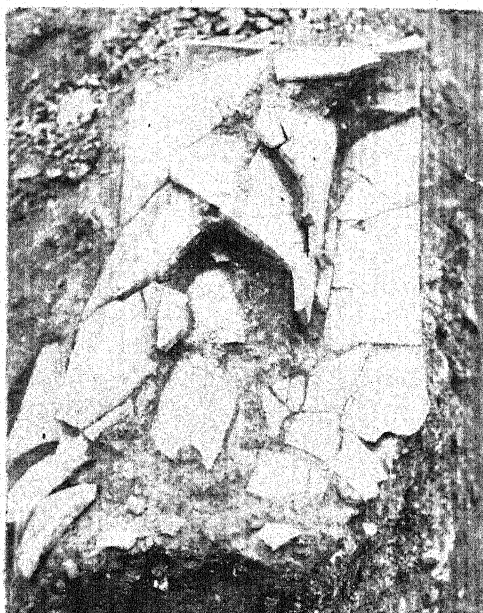
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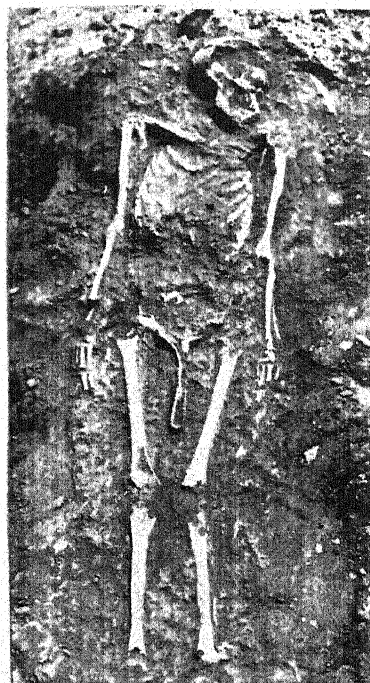
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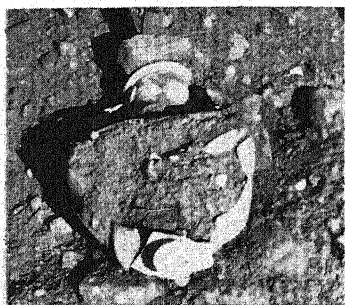
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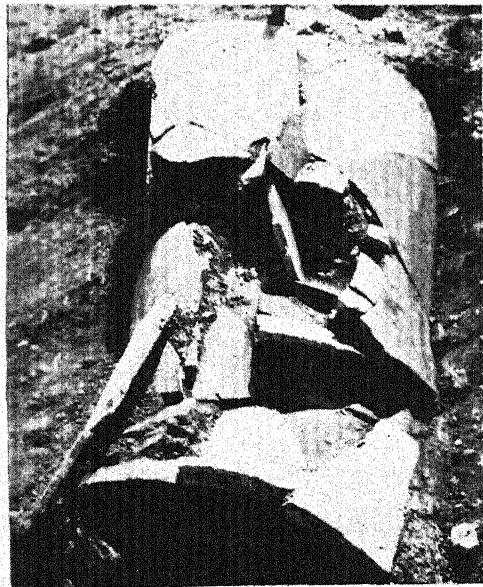
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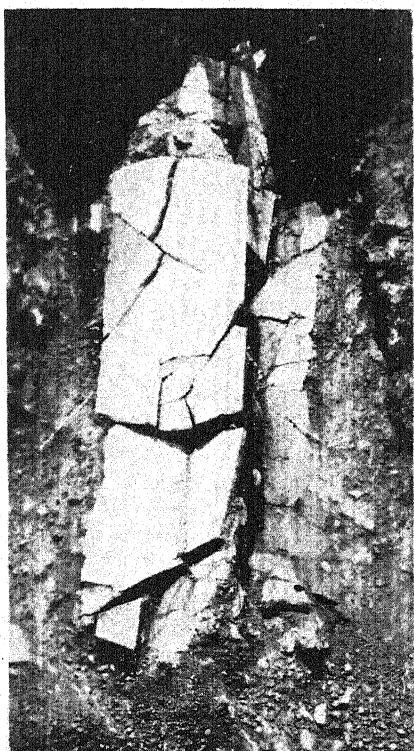
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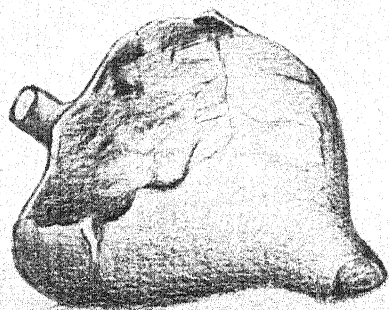
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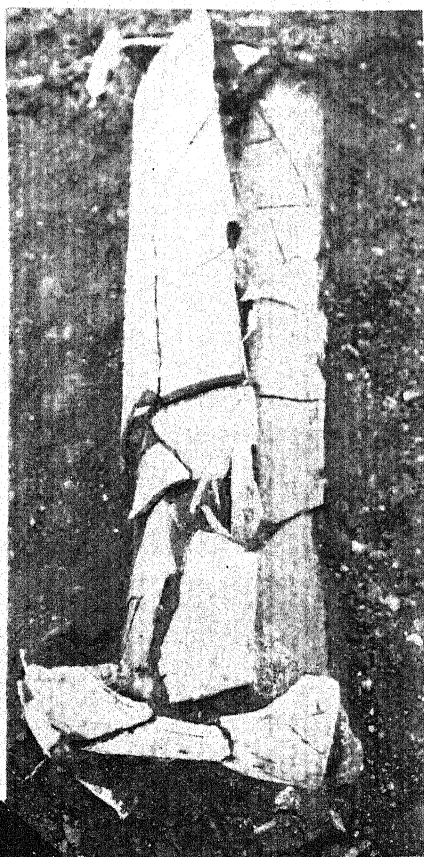
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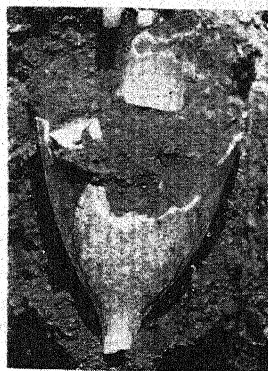
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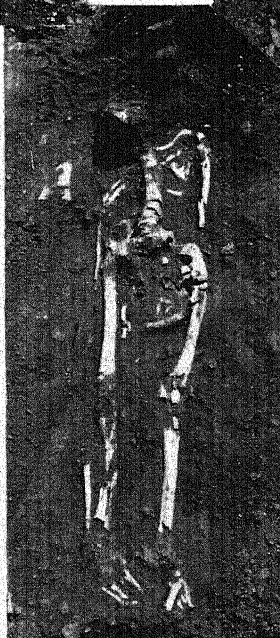
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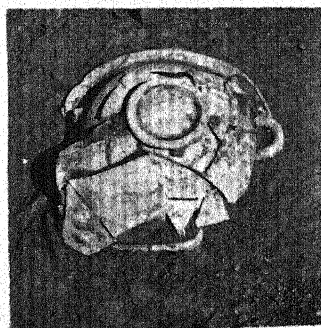
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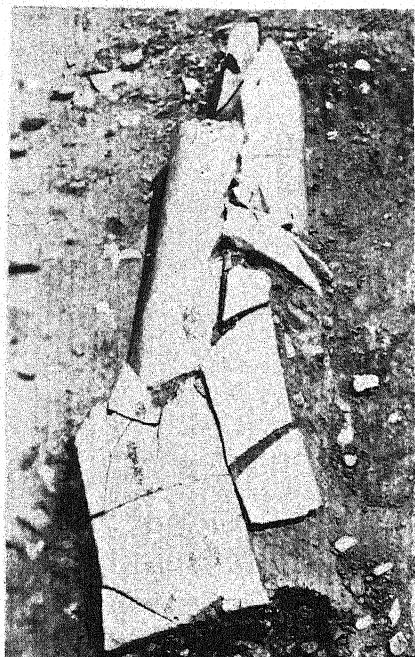
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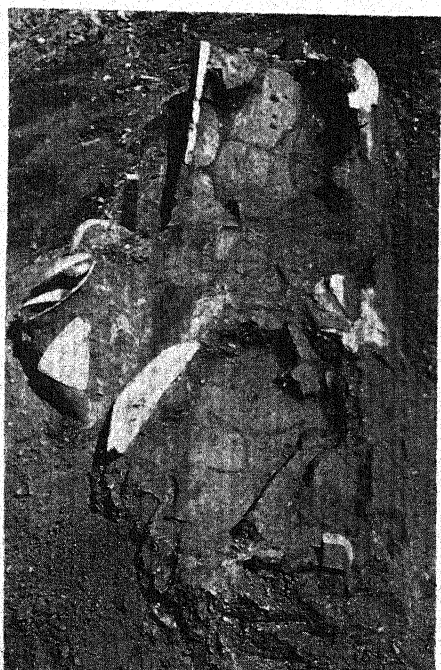
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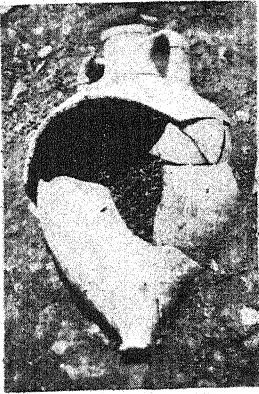
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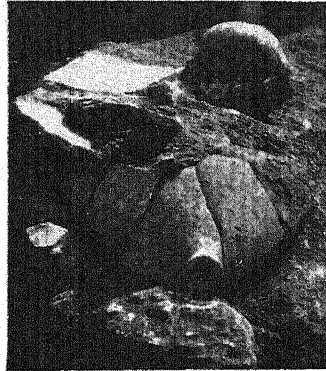
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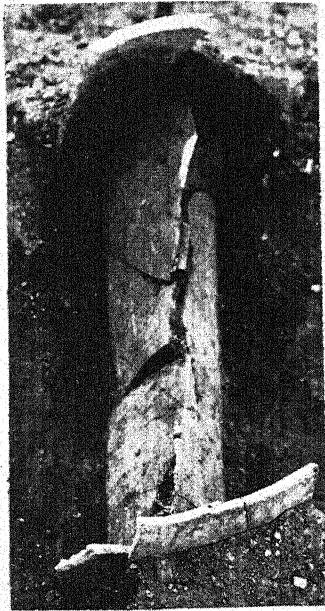
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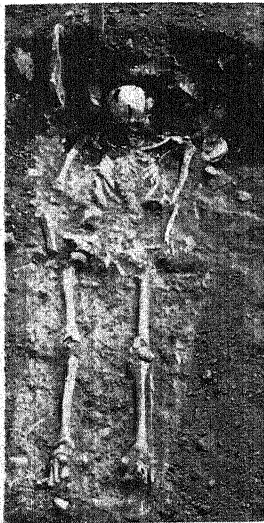
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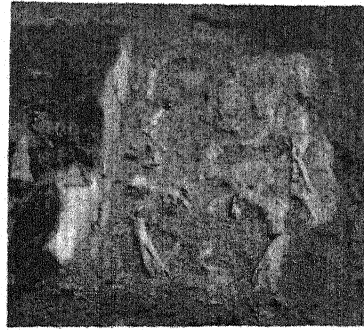
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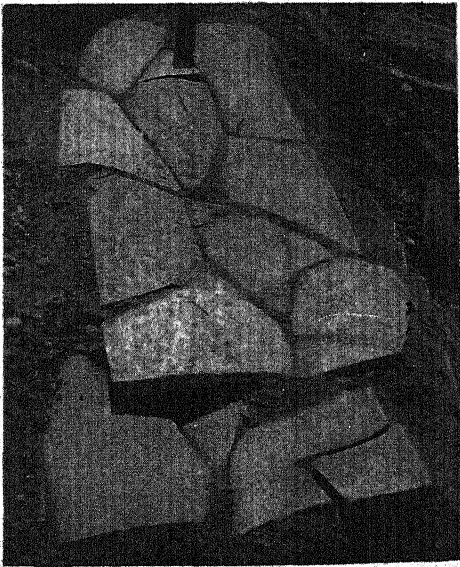
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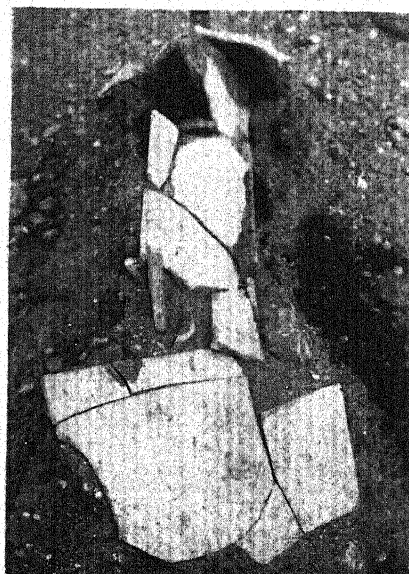
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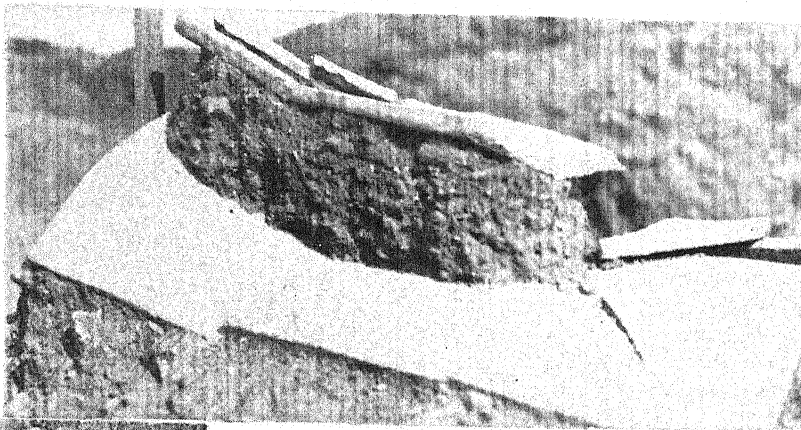
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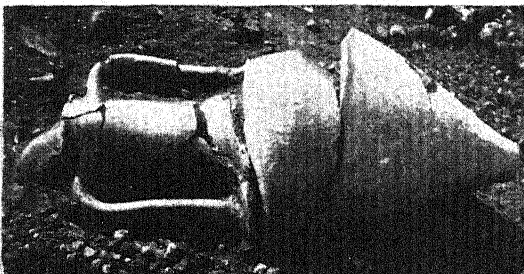
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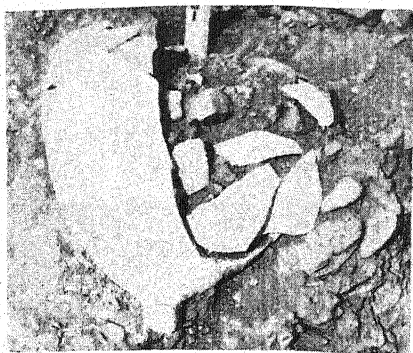
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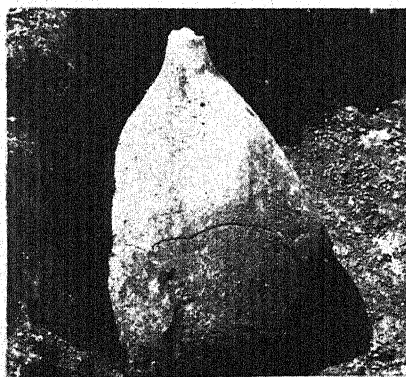
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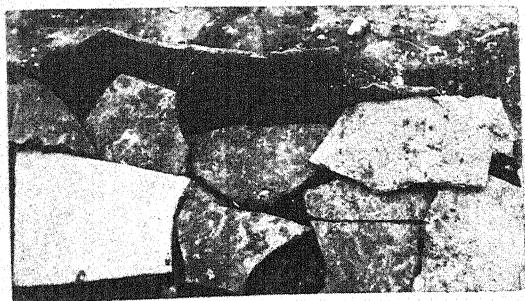
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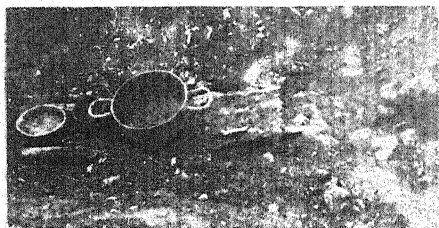
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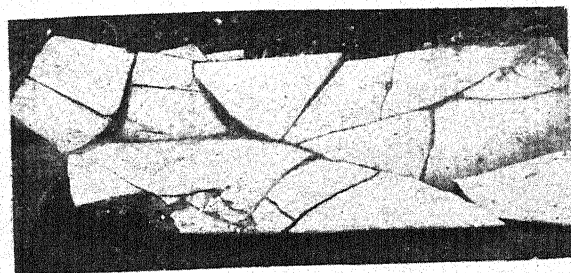
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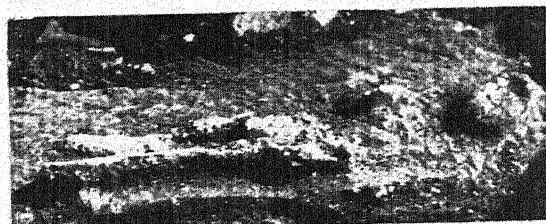
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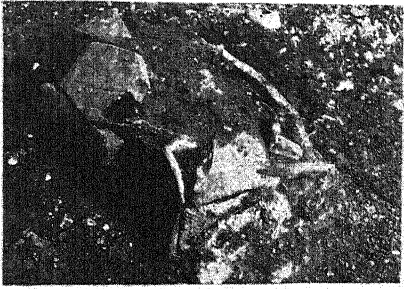
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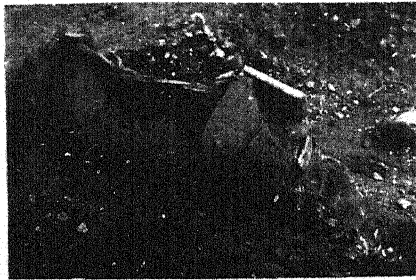
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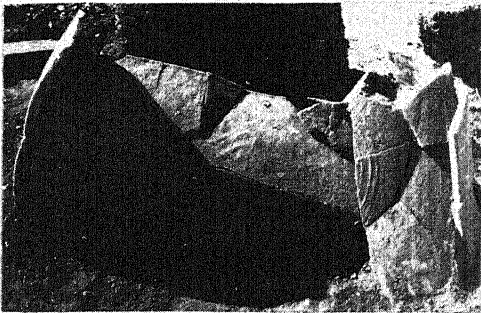
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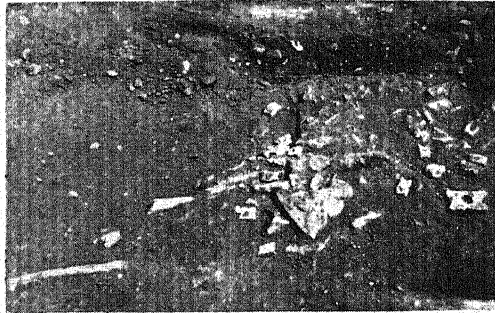
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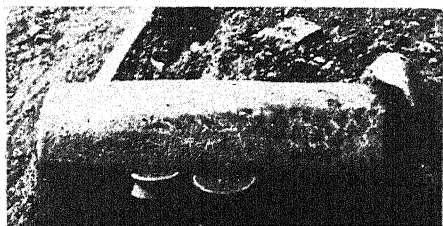
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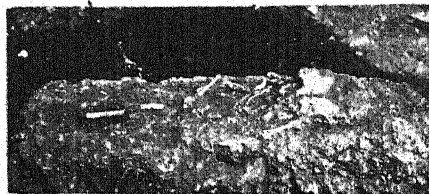
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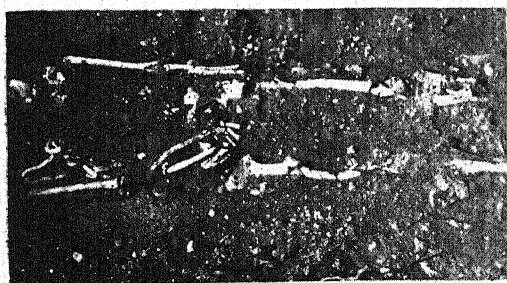
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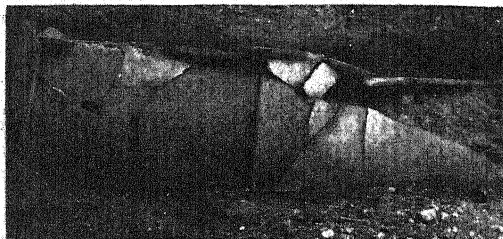


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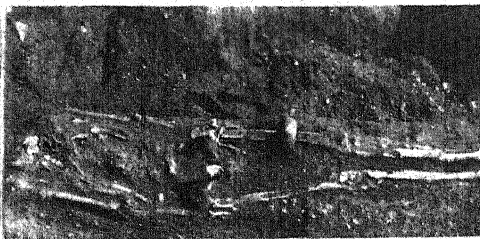


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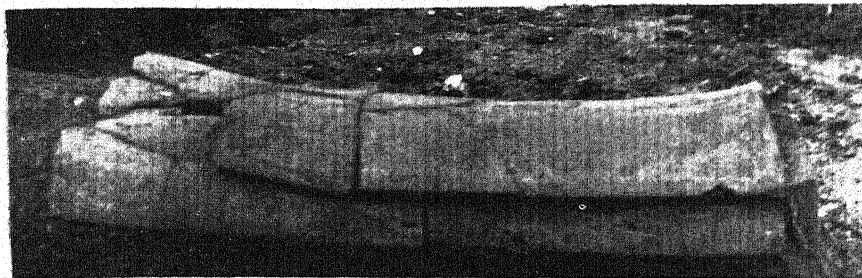
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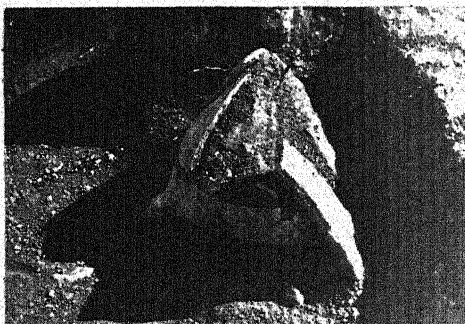
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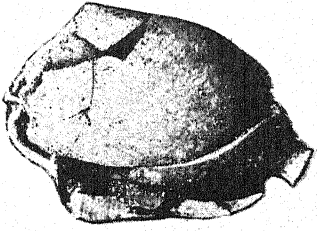
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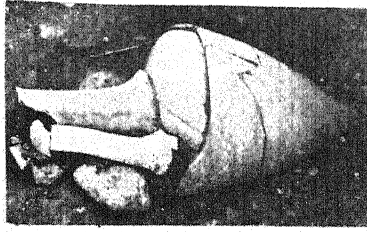
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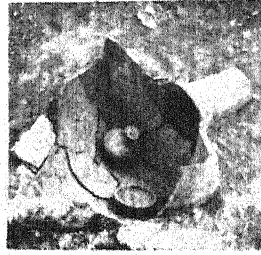
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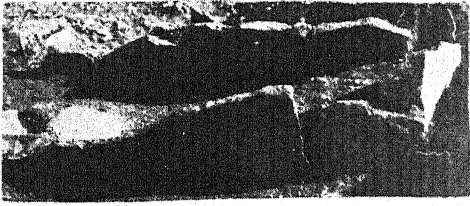
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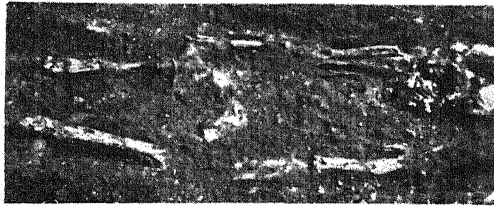
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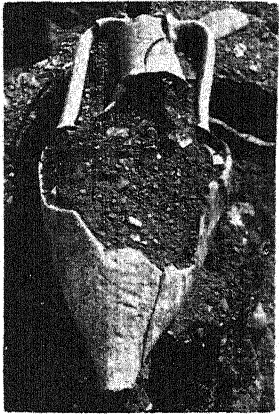
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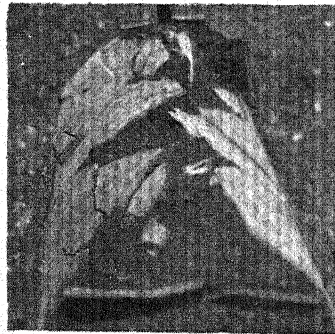
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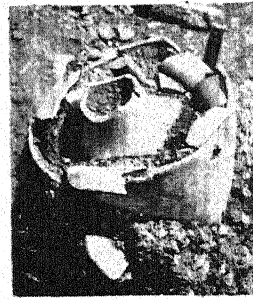
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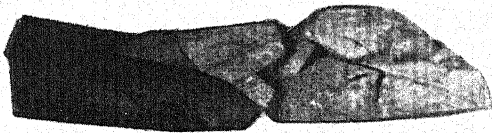
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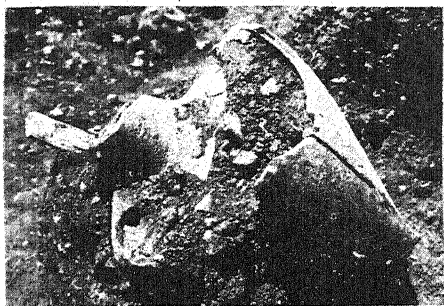
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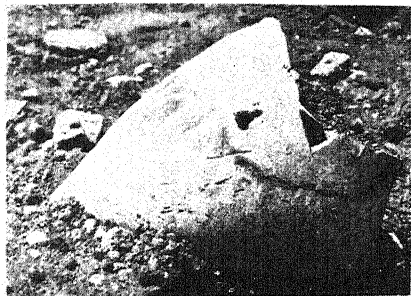
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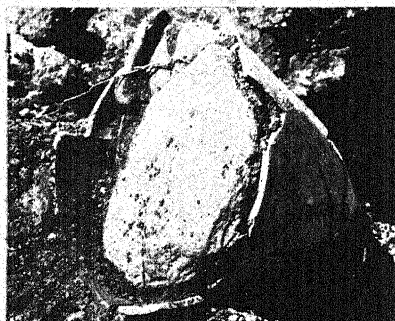
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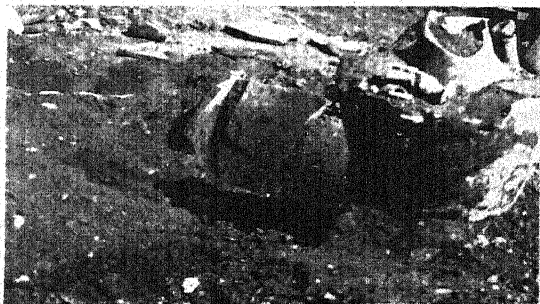
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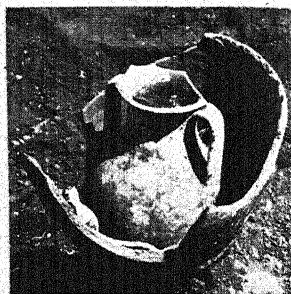
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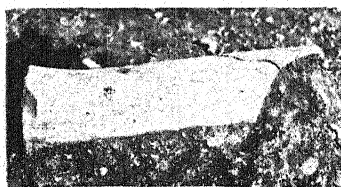
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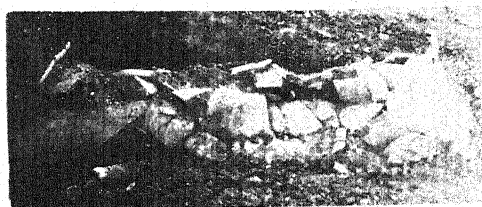
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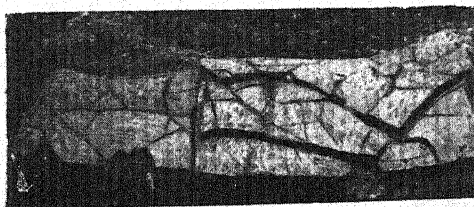
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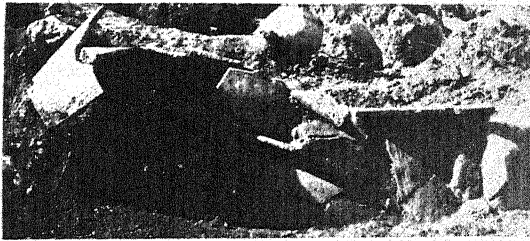
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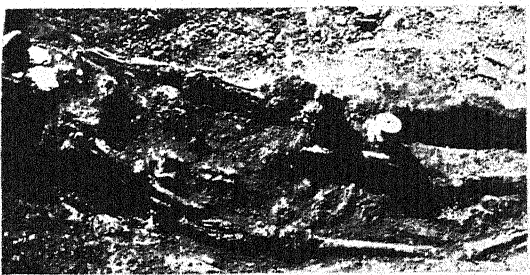
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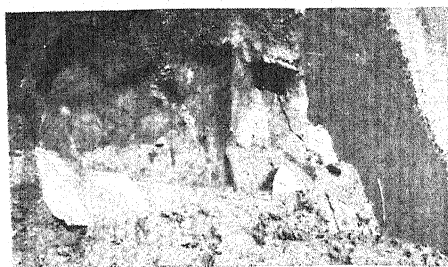
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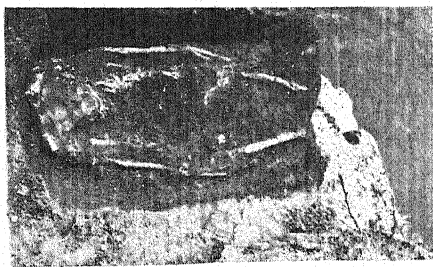
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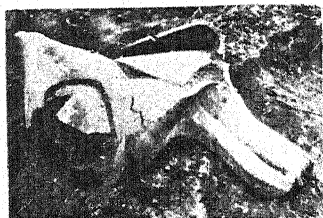
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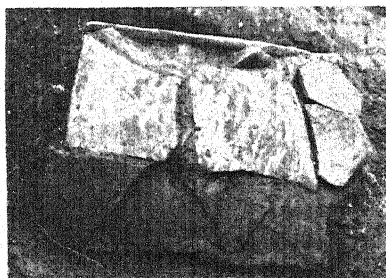
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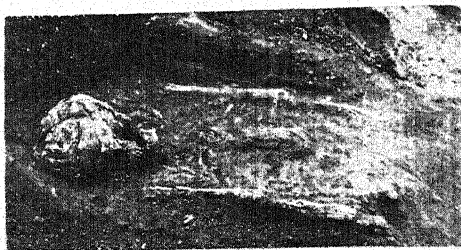
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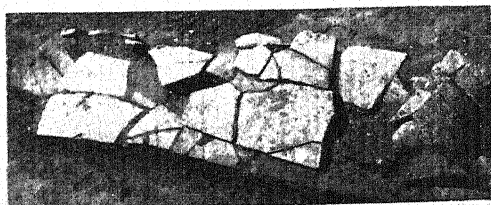
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171 a



171 b



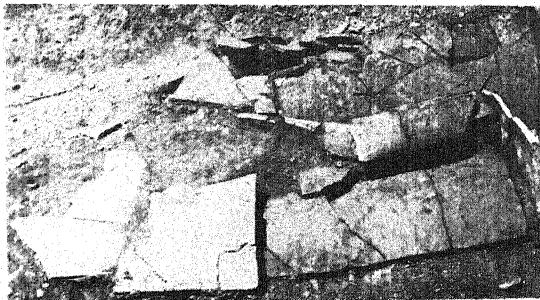
172



173



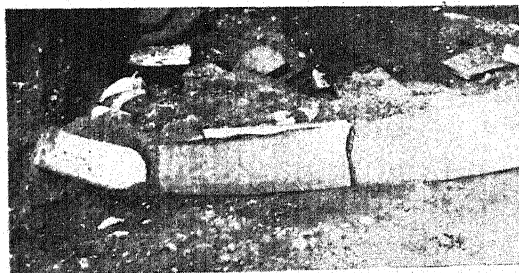
174



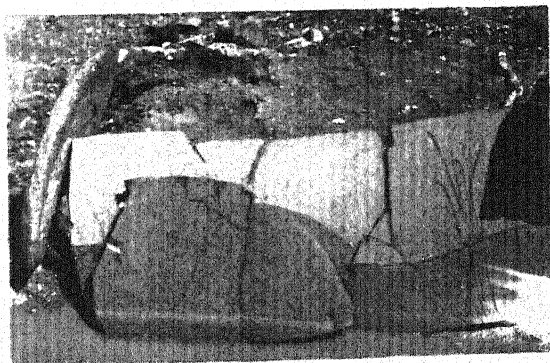
176
175



176



177



178 a



178 b



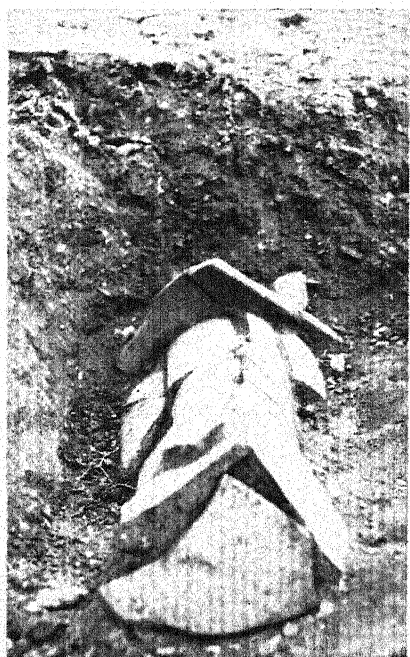
179



181



187



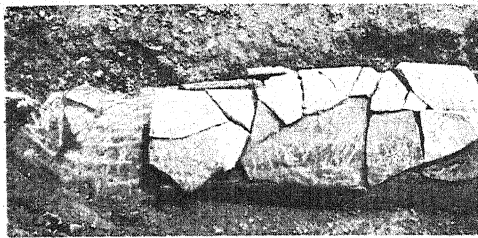
183



185 a



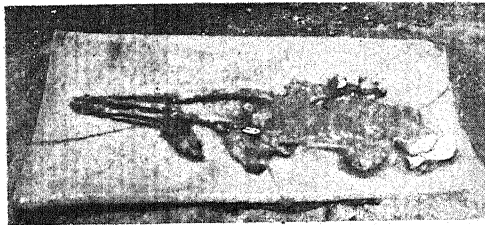
185 b



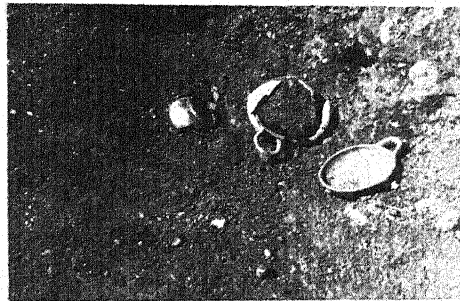
190 a



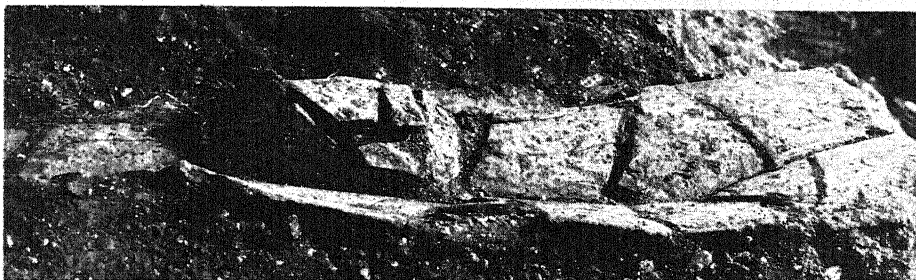
190 b



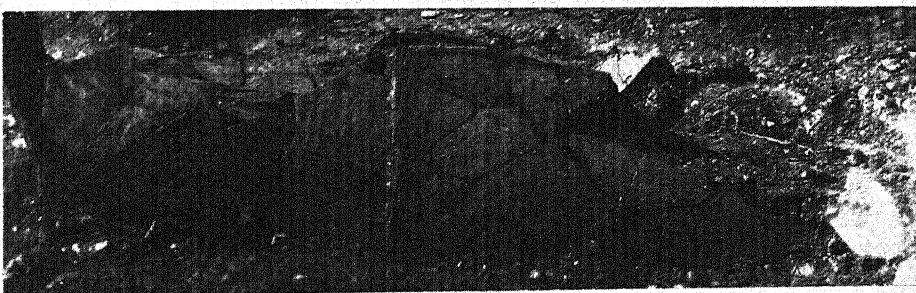
191



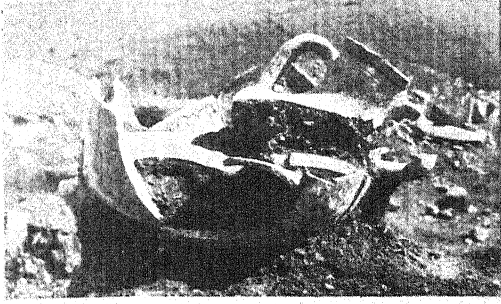
193



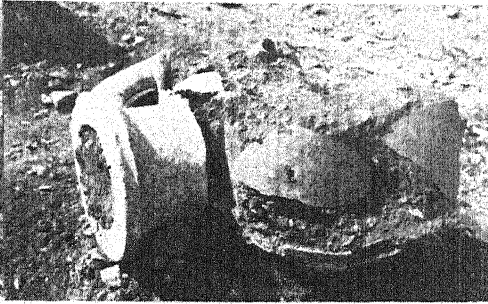
194



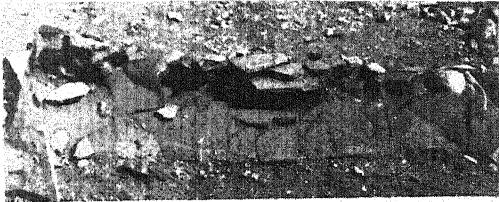
195



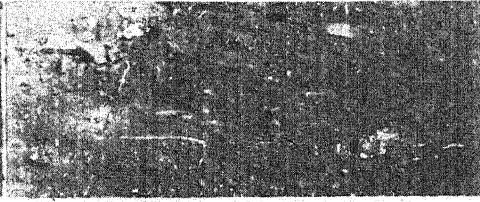
196



203



204 a



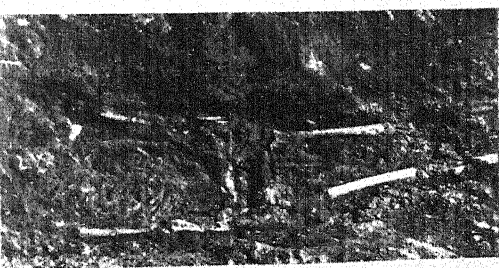
204 b



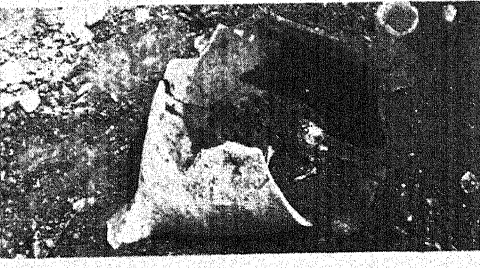
206 a



206 b



205



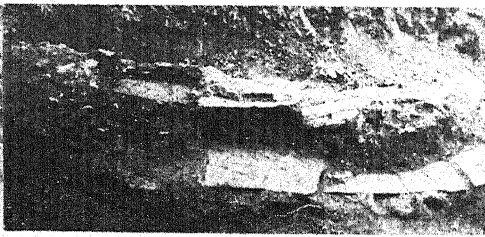
207



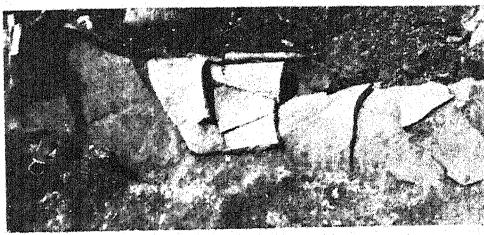
209

208

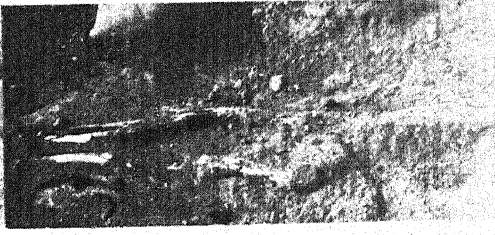
207



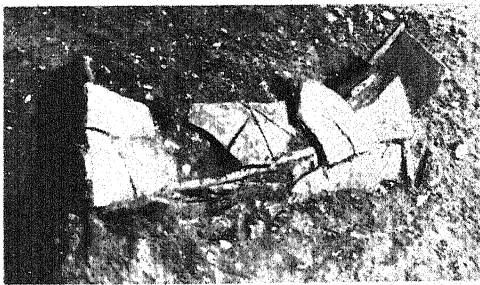
212



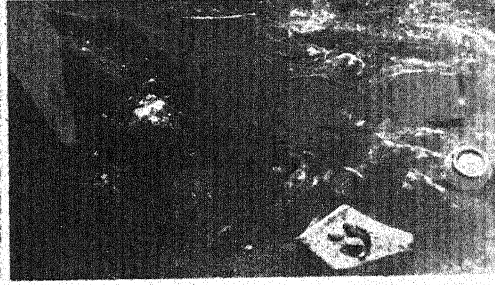
210 a



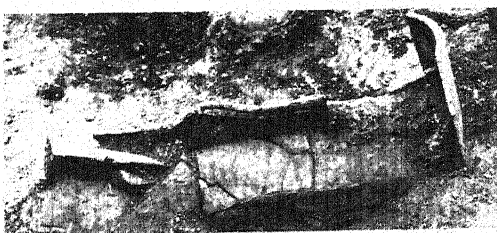
210 b



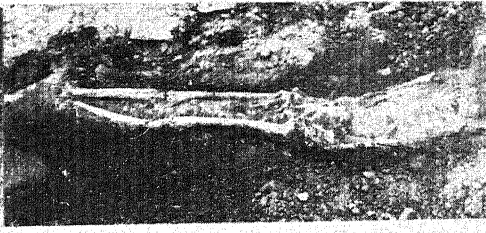
211 a



211 b



213 a



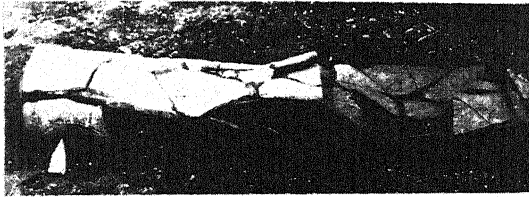
213 b



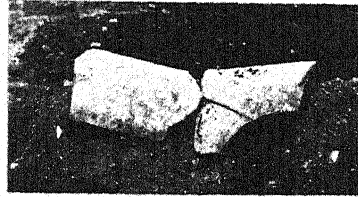
214



215



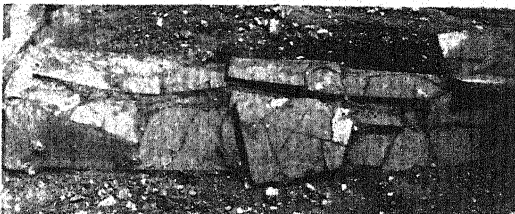
218 a



217



218 b



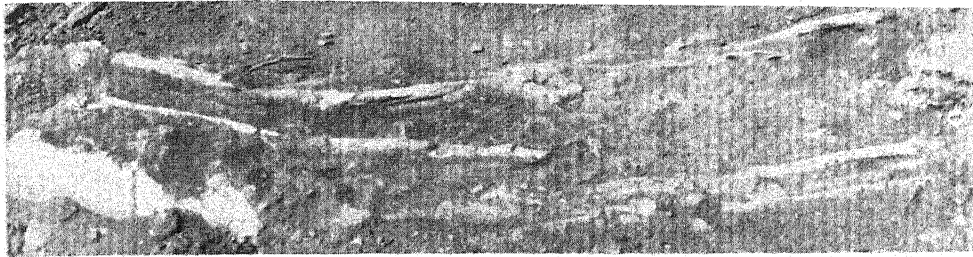
219 a



219 b



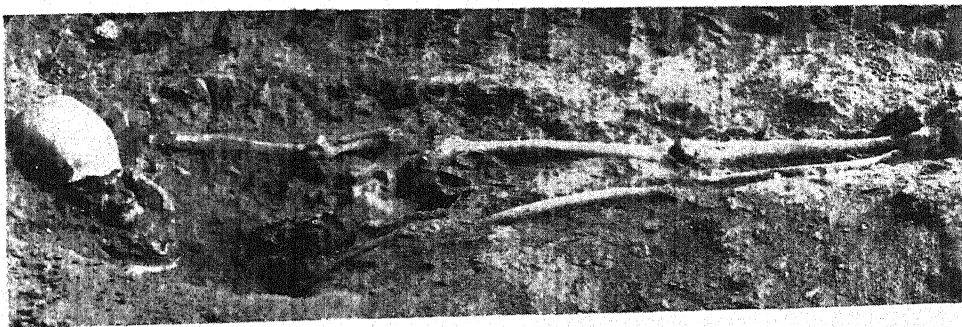
216



223b



224 b



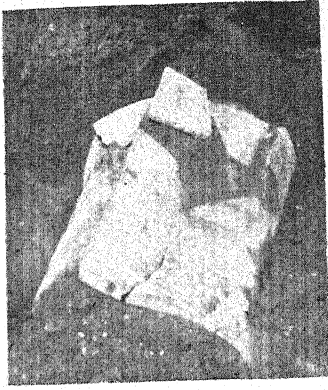
229



223a



224 a



220



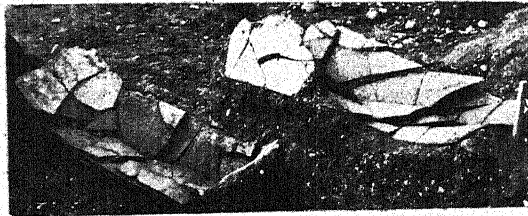
227



231



232



237a

236a



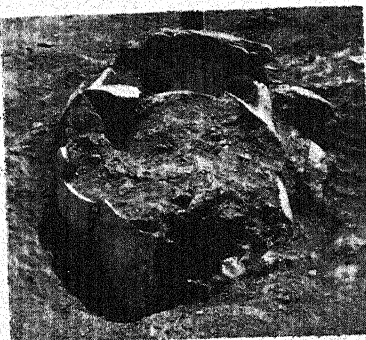
236 b



237b



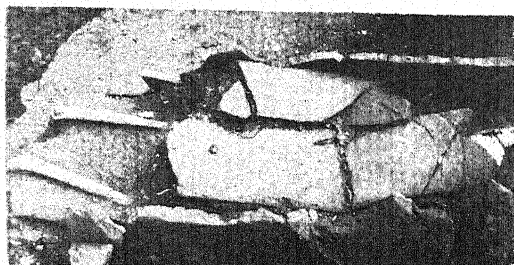
239



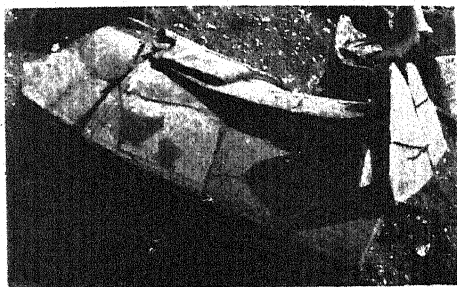
234



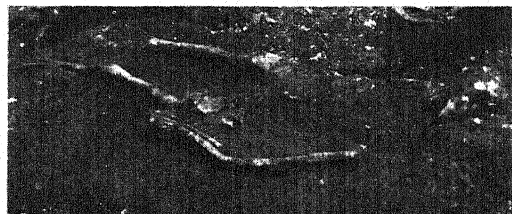
240



242



244 a



244 b



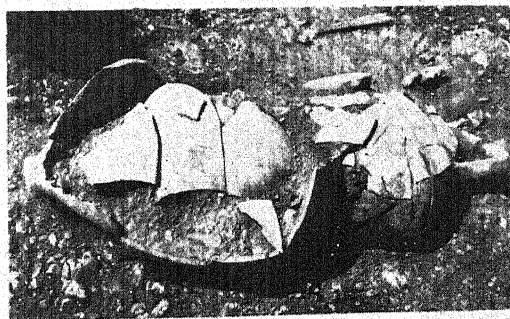
245 a



245 b



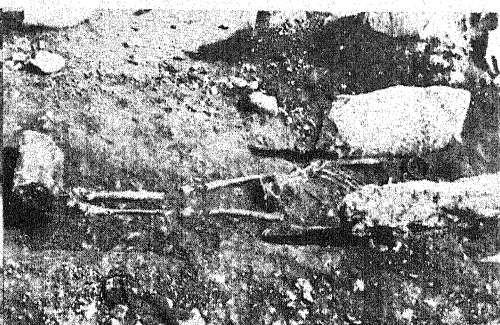
246



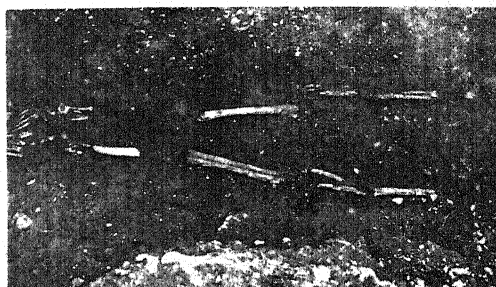
247



248



249



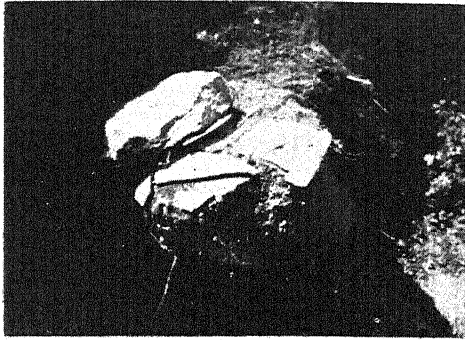
250



254



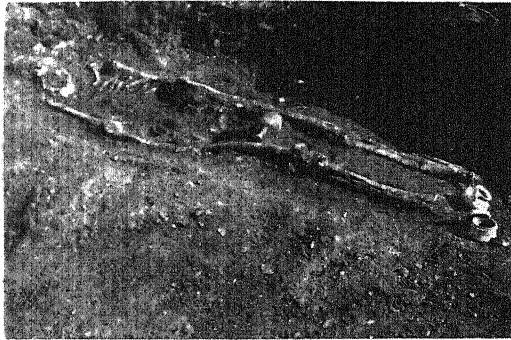
258 and 257



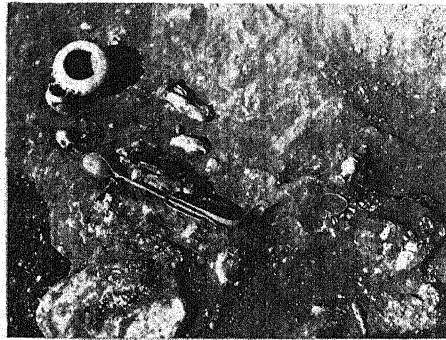
261



262



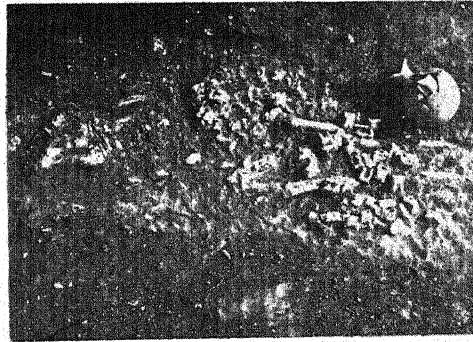
264



266



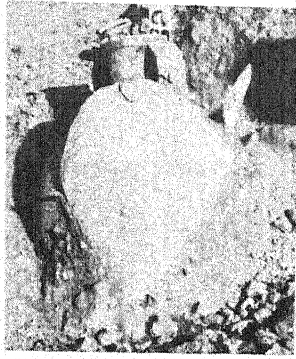
267



268



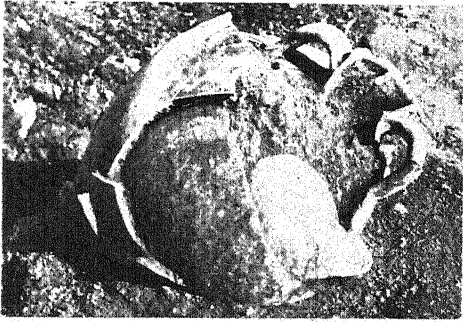
274 a



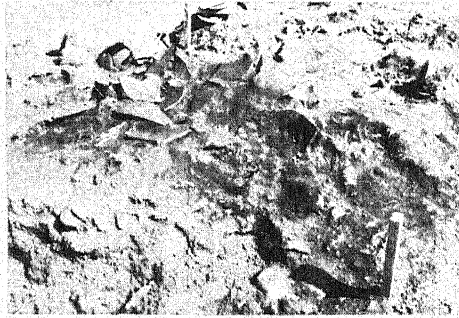
273



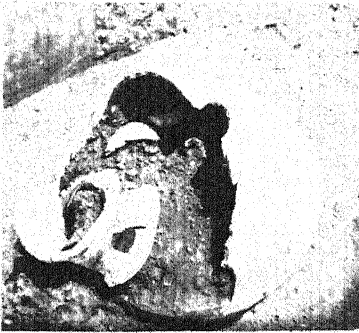
274 b



276



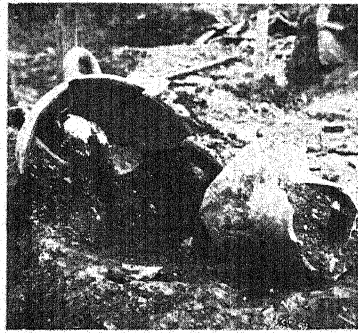
278



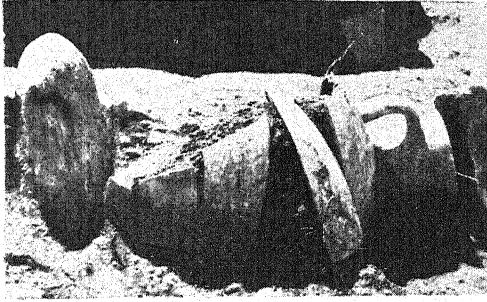
281



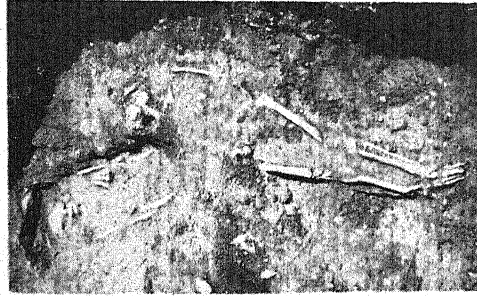
282



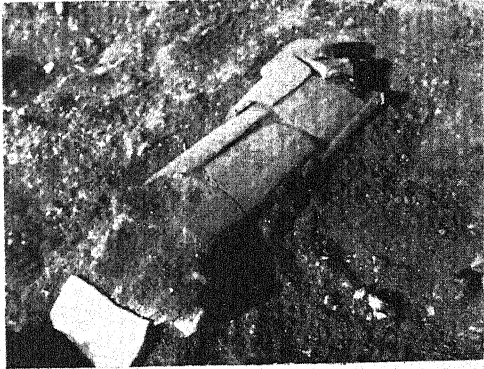
283



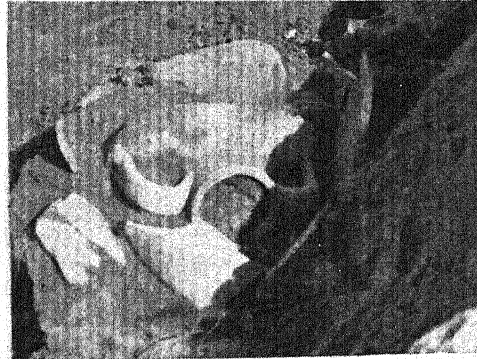
284



287 and 288



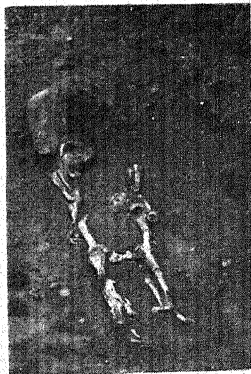
290



293



295 a



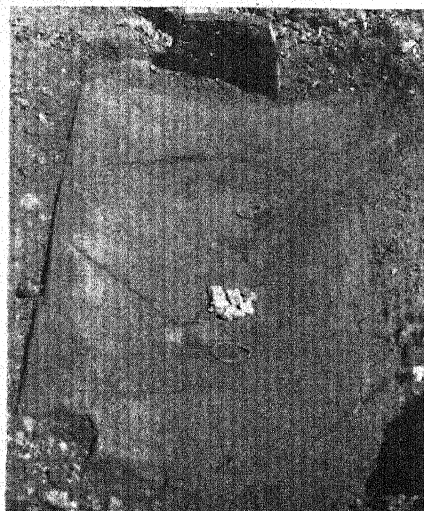
295 b



299



301 a



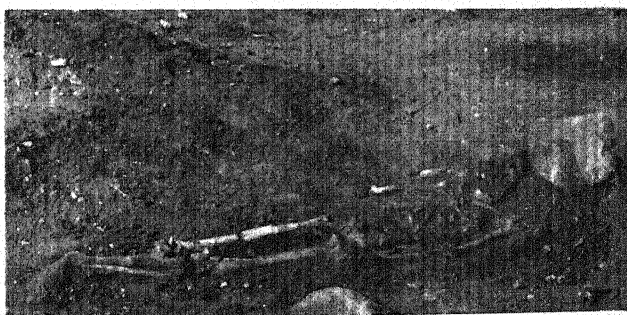
301 b



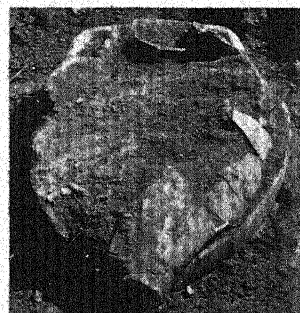
304



305 a



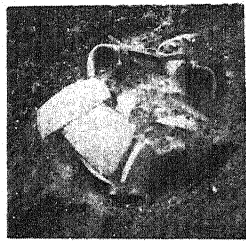
305 b



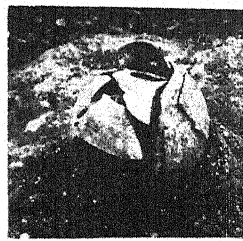
307



309



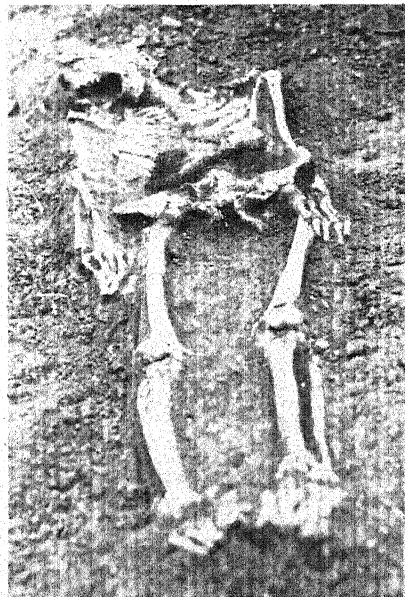
310



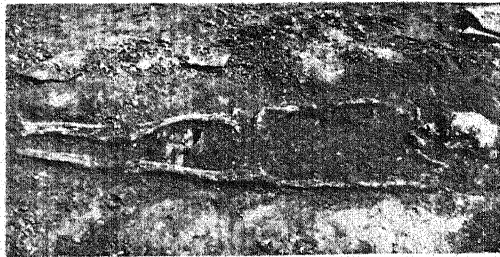
313



311 a



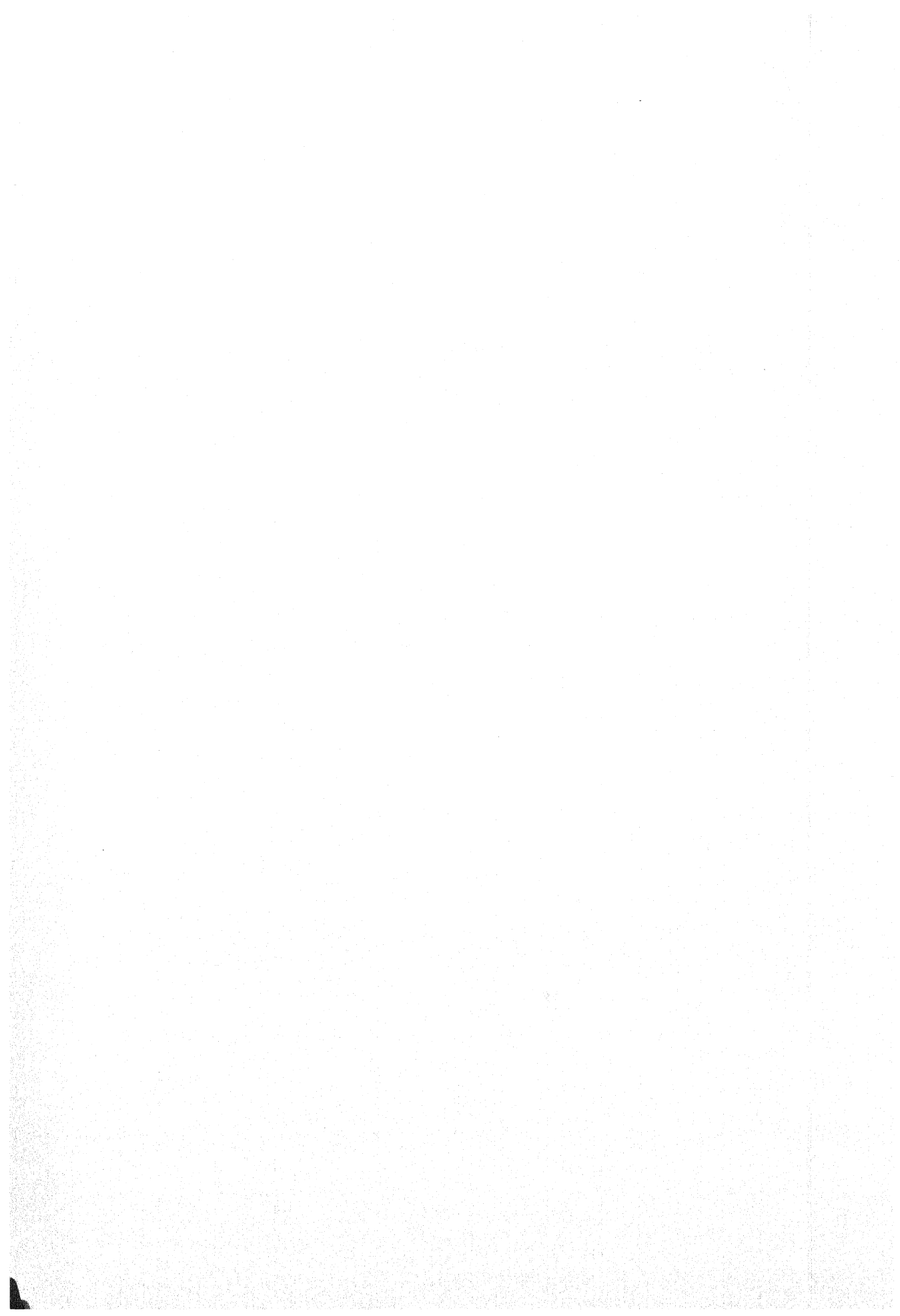
311 b

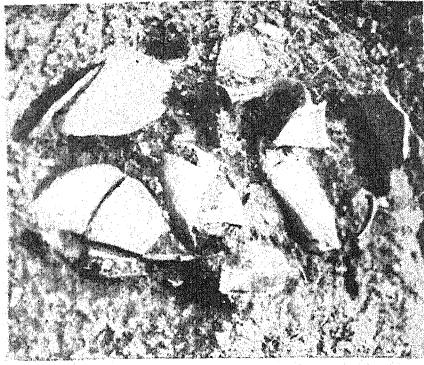


312

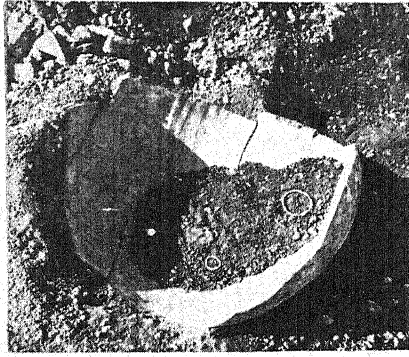


314

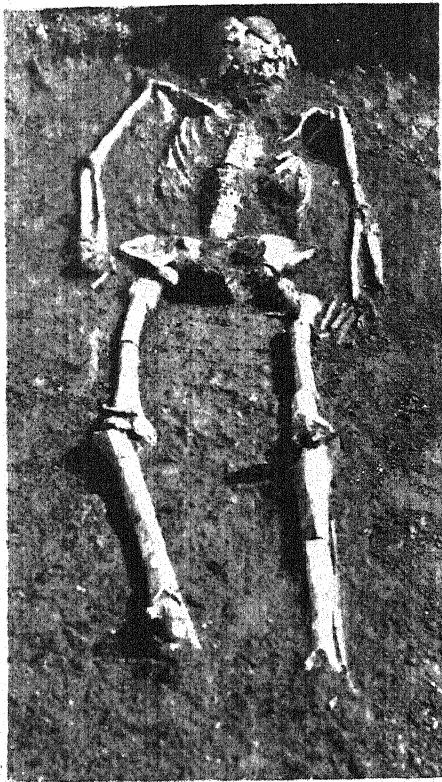




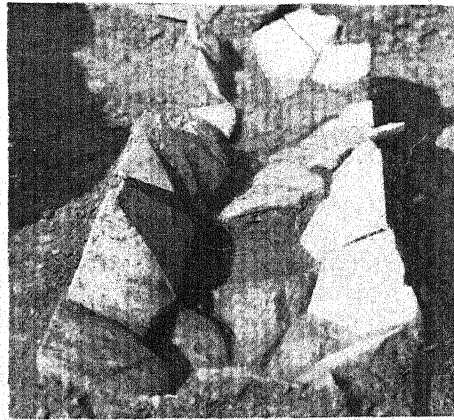
317



319



320



325



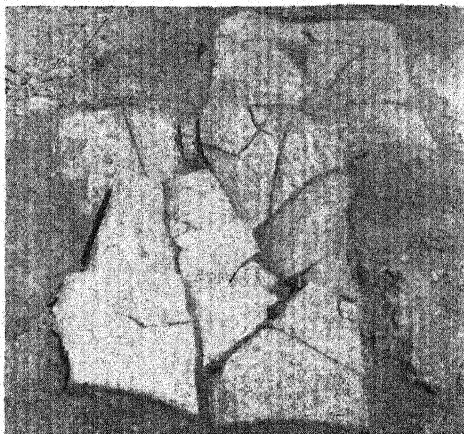
324



326

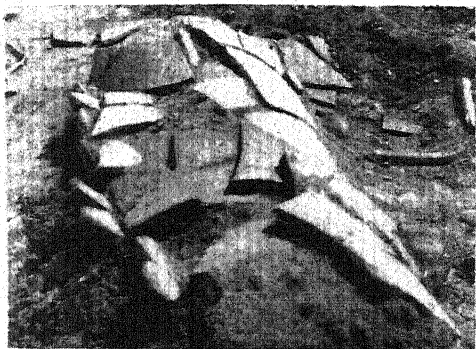


329



330 (above)

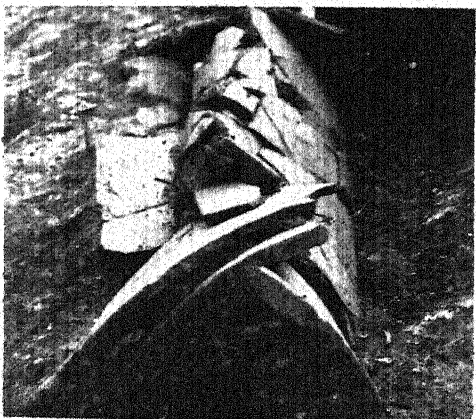
332 (below)



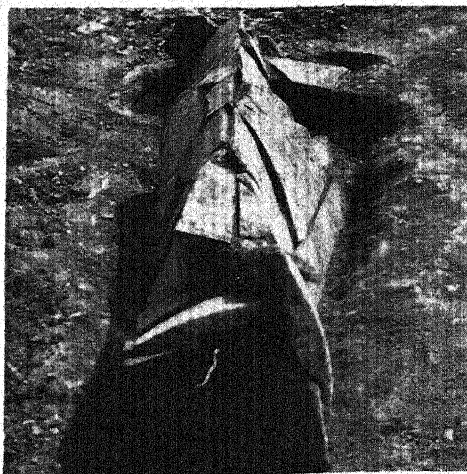
331a



331b



336



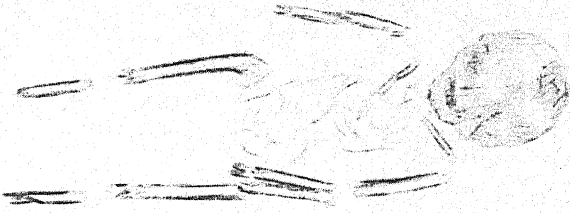
334



335



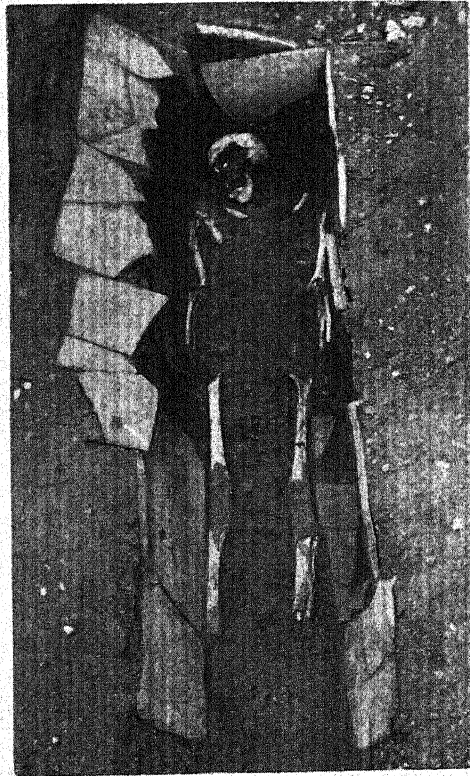
339



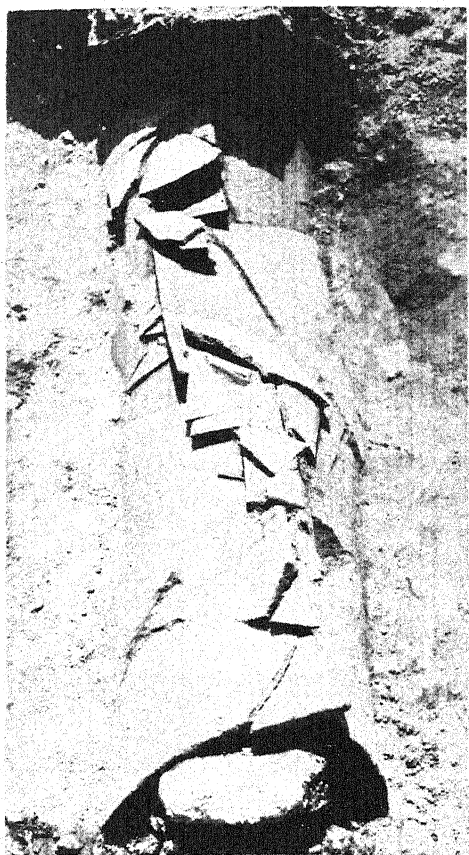
340



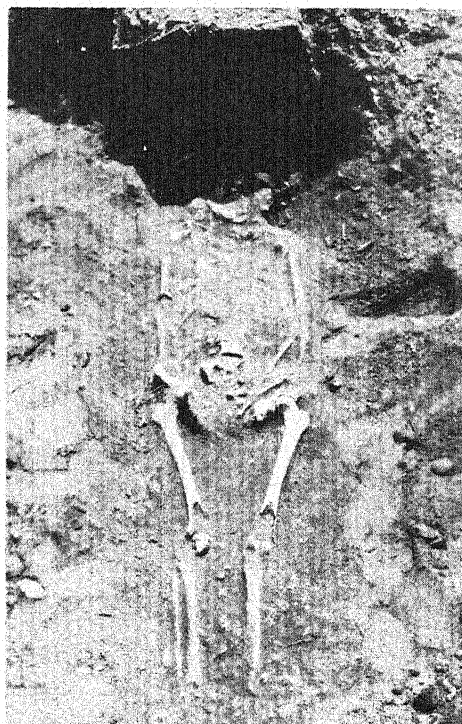
338



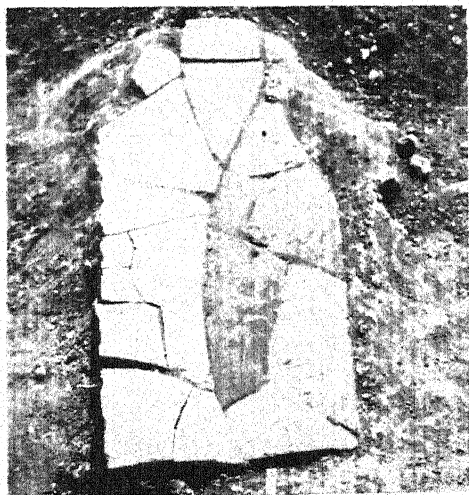
343



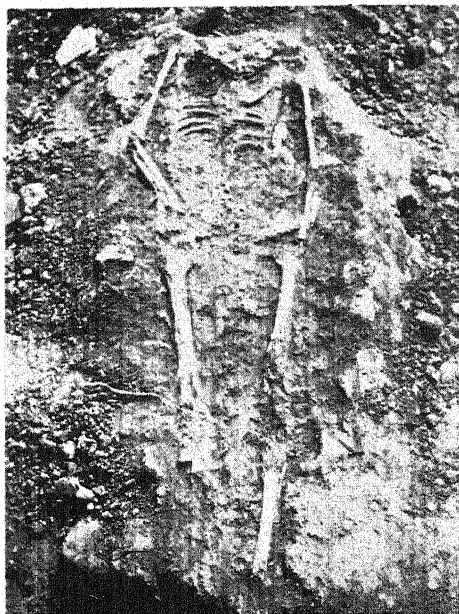
347 a



347 b



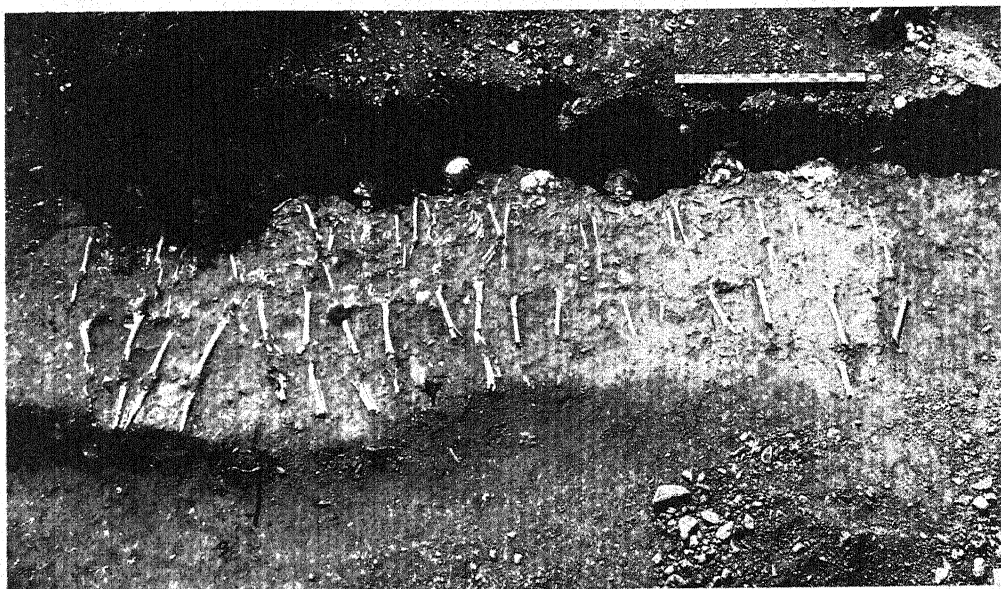
349 a



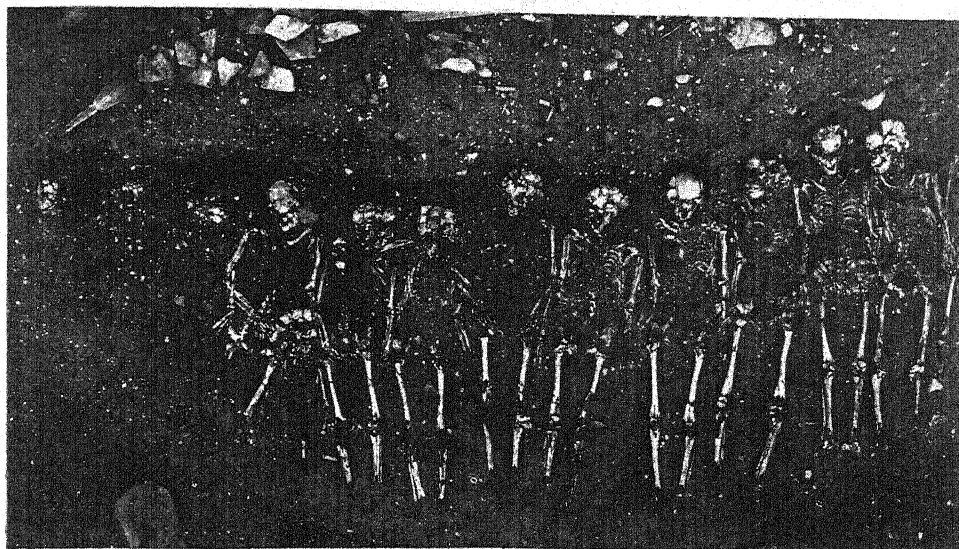
349 b



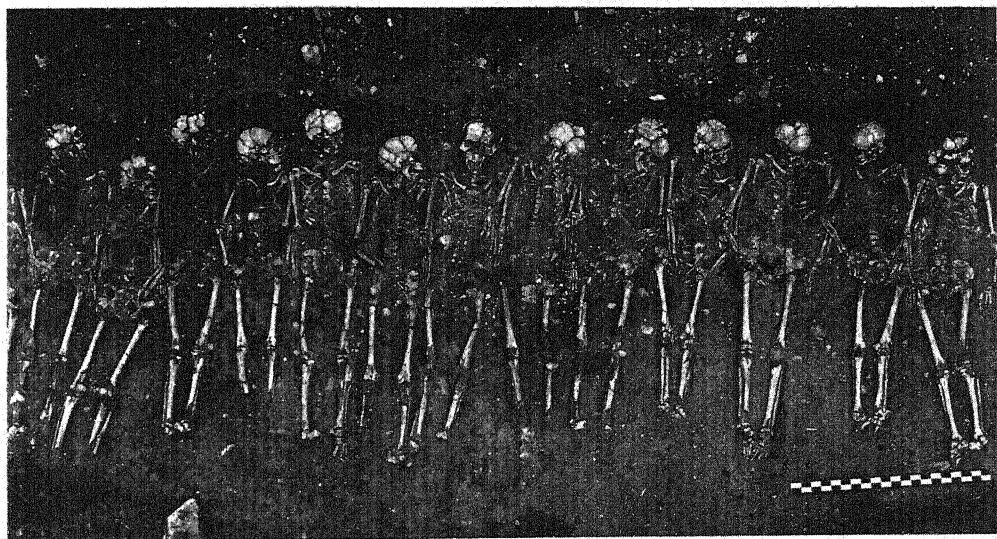
348



350

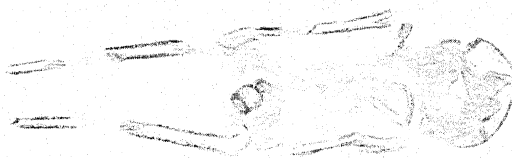


364 a

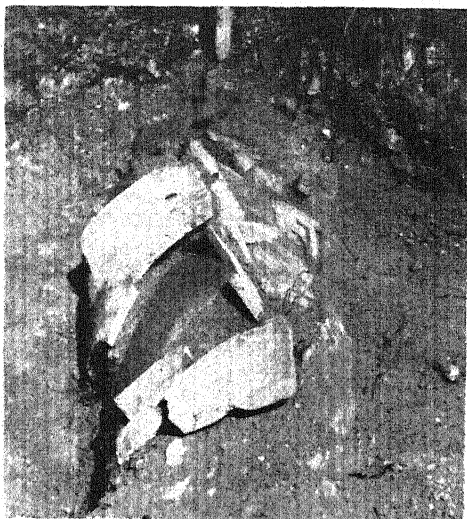


364 b

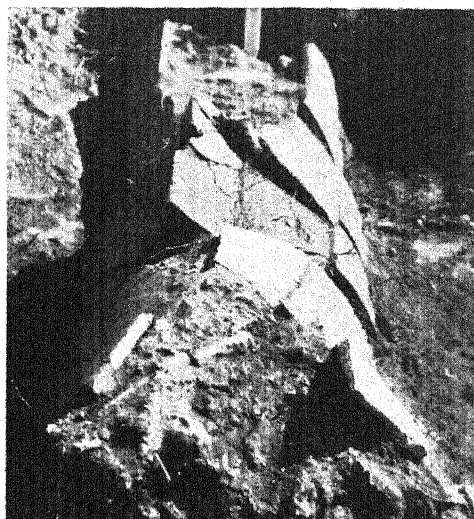
Twenty-six Skeletons (364 b continuing 364 a). One skull missing at left in 364 a.
So the first is no. 2 and the last in 364 b is no. 26. See text p. 75, fig. 16.



352



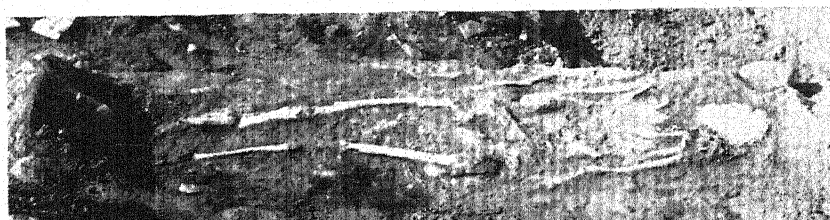
361



369



371



372



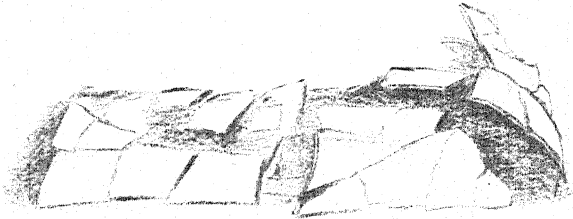
375



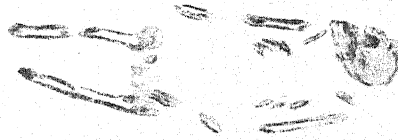
379



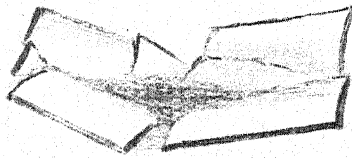
376



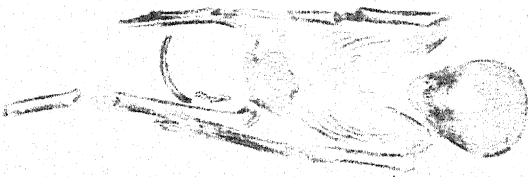
378



377



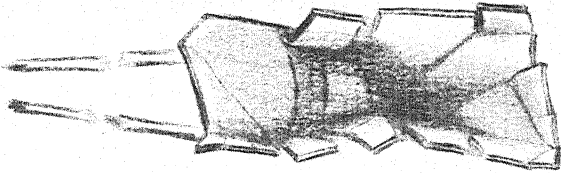
381



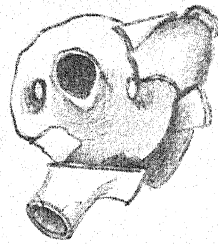
382



383



395



398



397



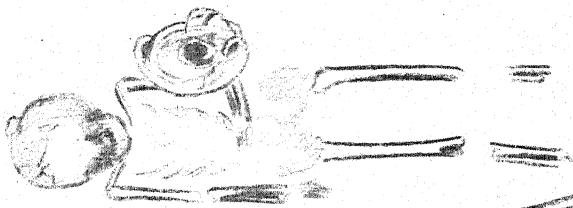
404



400



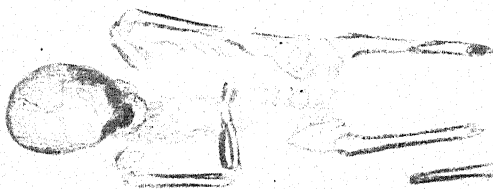
411



402



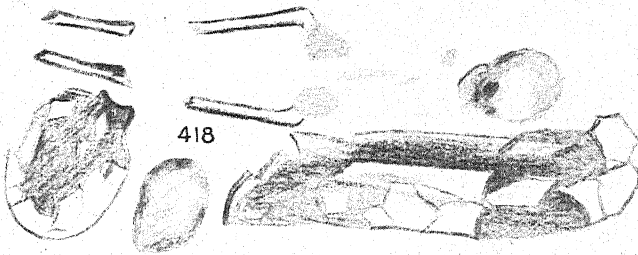
413



407



414



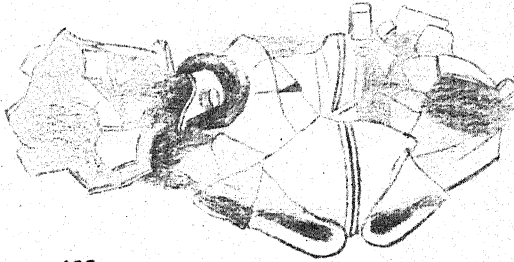
416

417

418



437

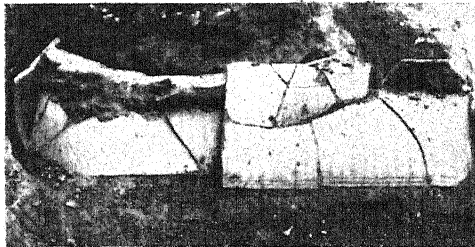


433

432



459



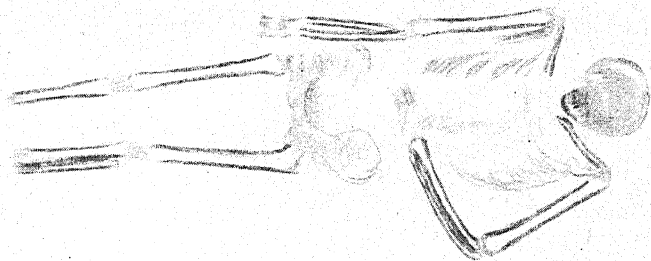
426 a



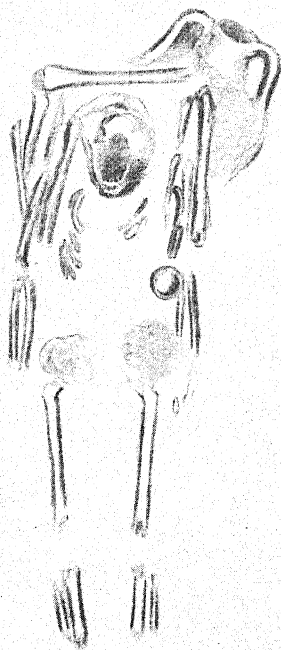
426 b



463



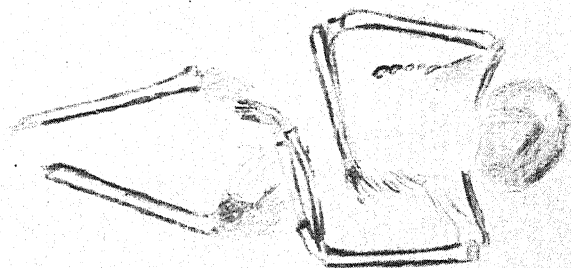
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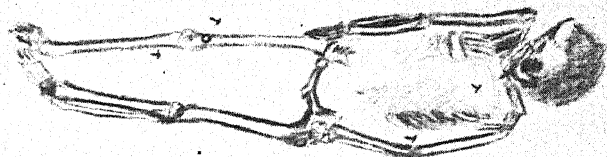
484, 483, 482



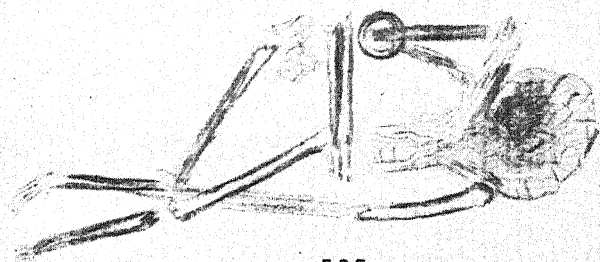
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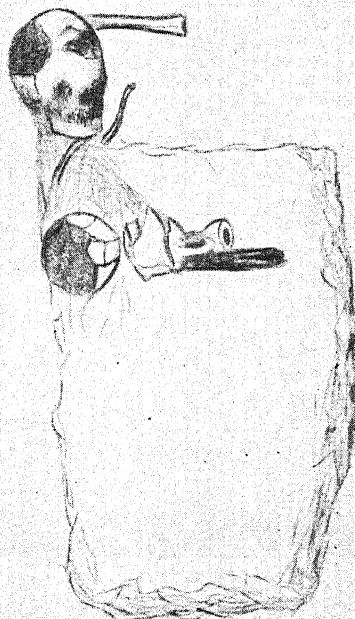
491



505



535



517



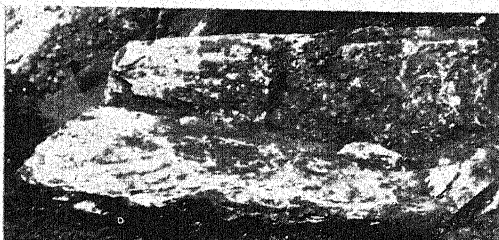
512 a



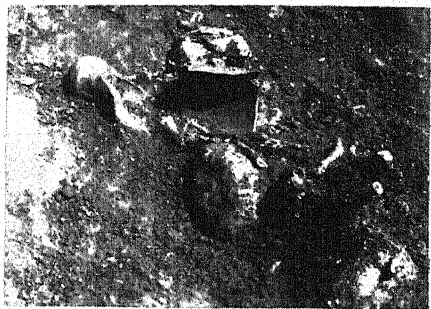
512 b



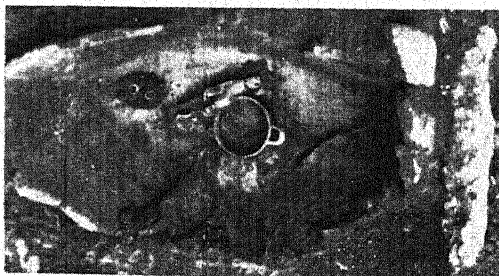
524 a



516



524 b



519



515



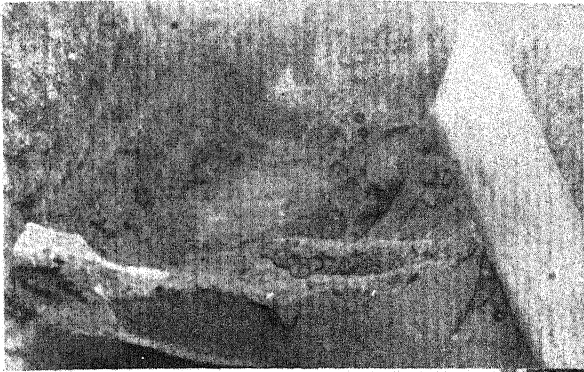
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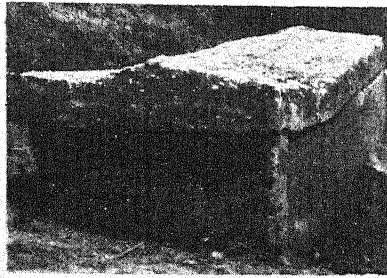
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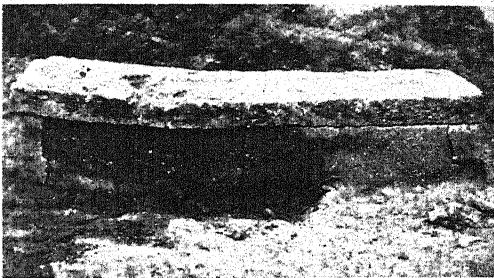
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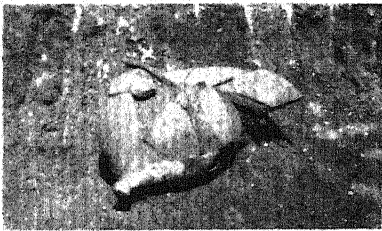
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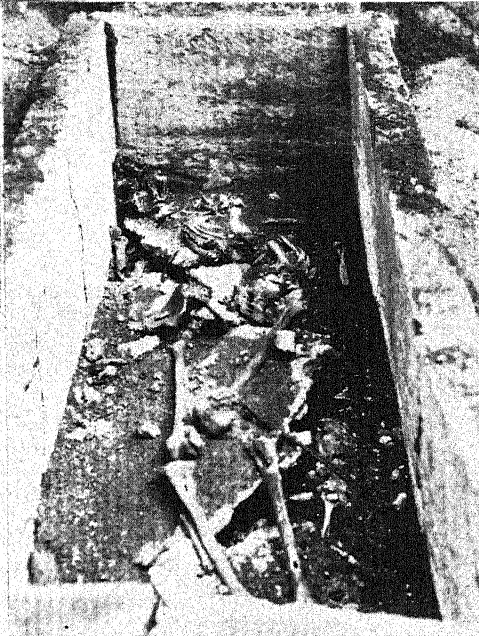
577 c



577 a



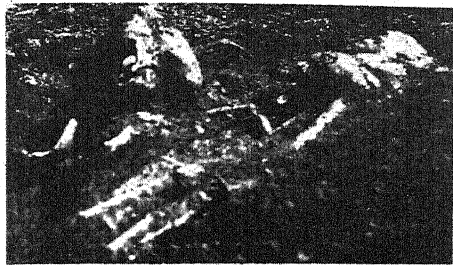
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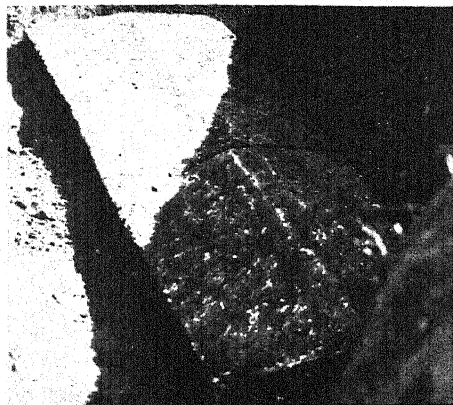
577 b



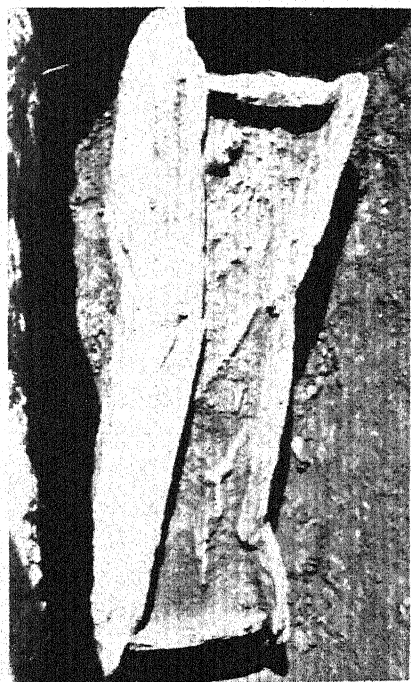
588



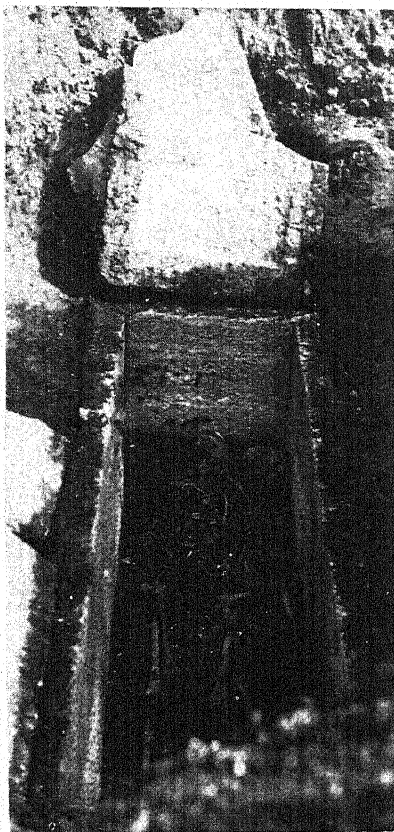
592



595 a



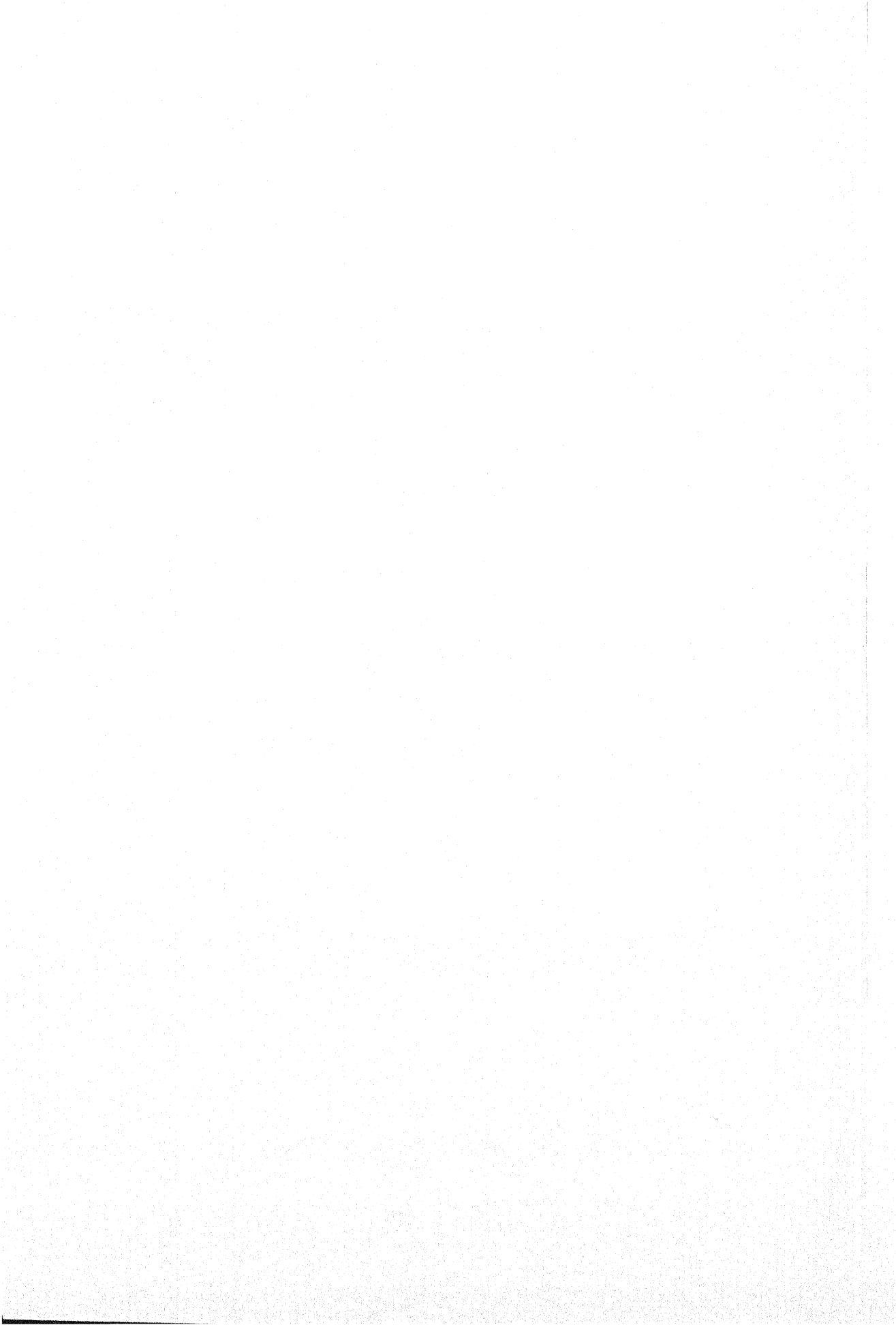
597 b



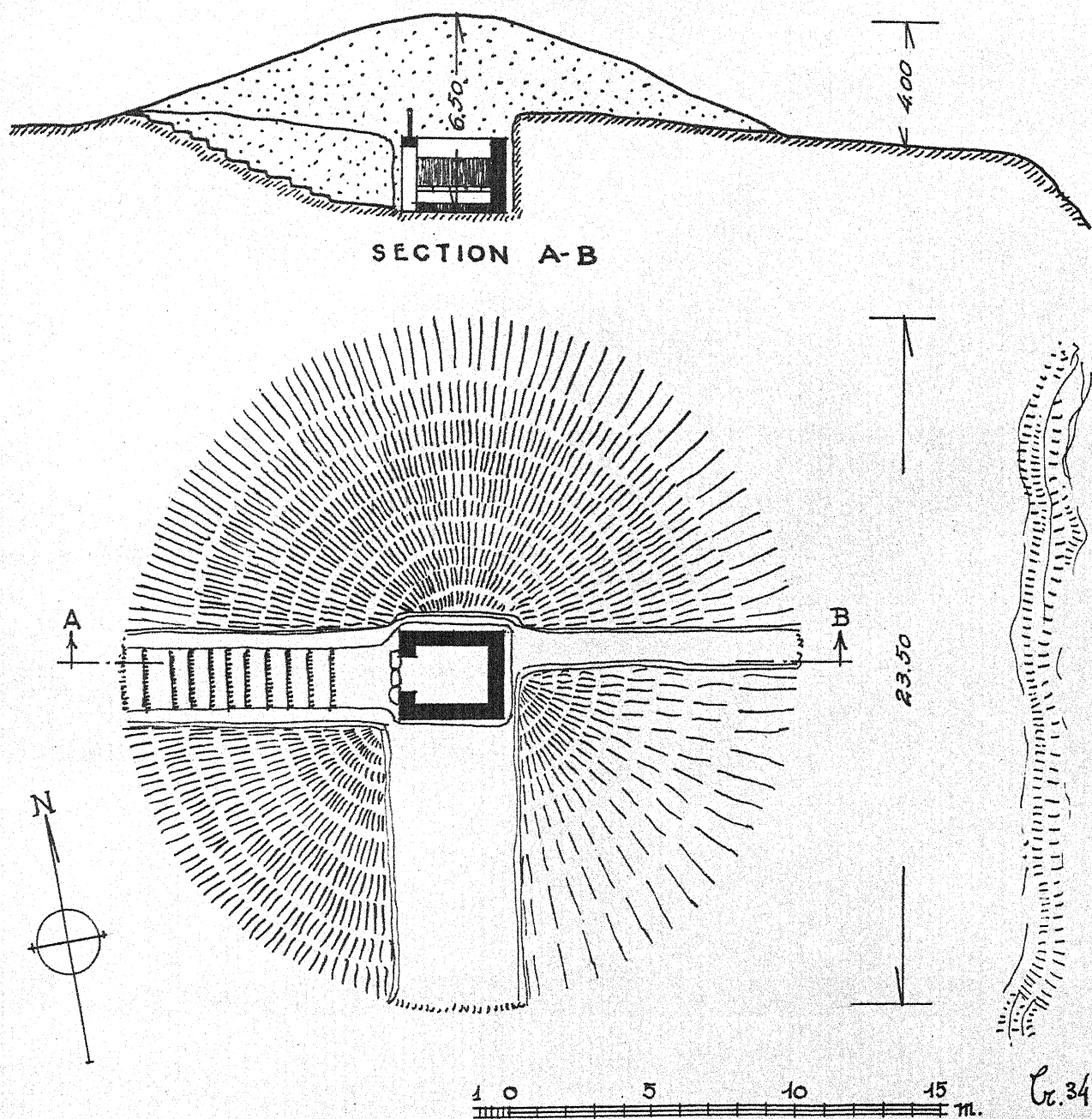
595 b



597 a

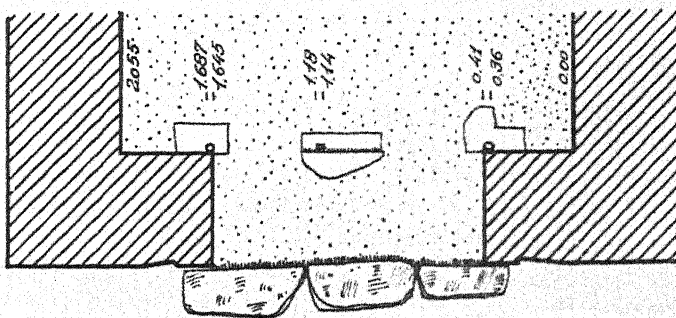
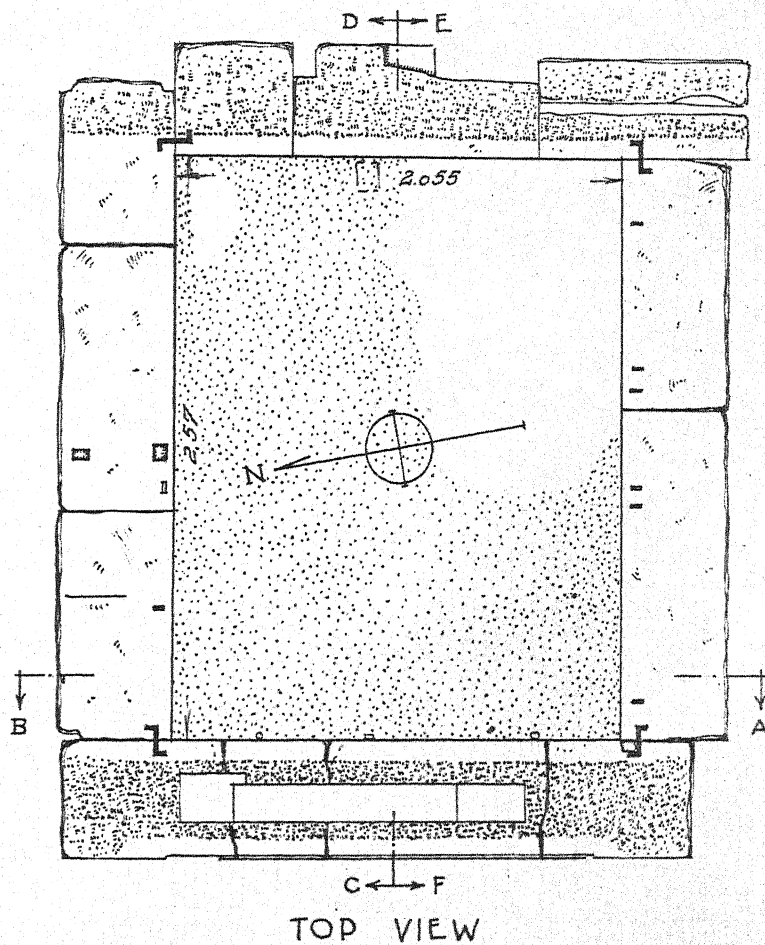


WEST RIDGE PAINTED CHAMBER TOMB



Section and Plan of Painted Chamber Tomb.

WEST RIDGE PAINTED CHAMBER TOMB

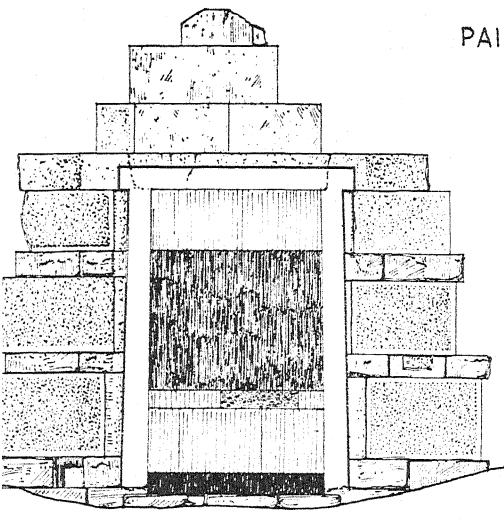


I. TRAVLOS
1934

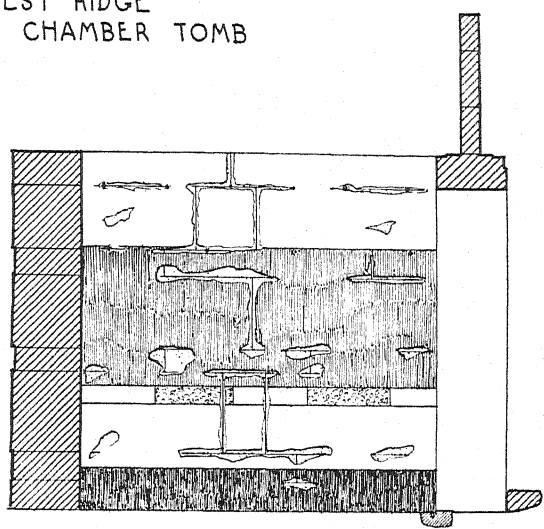
Top View and Entrance of Painted Chamber Tomb.



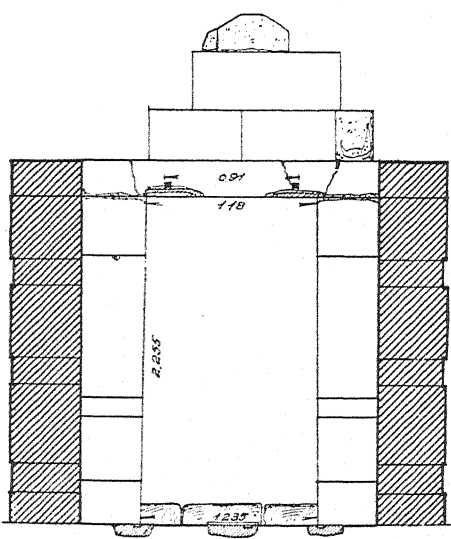
WEST RIDGE
PAINTED CHAMBER TOMB



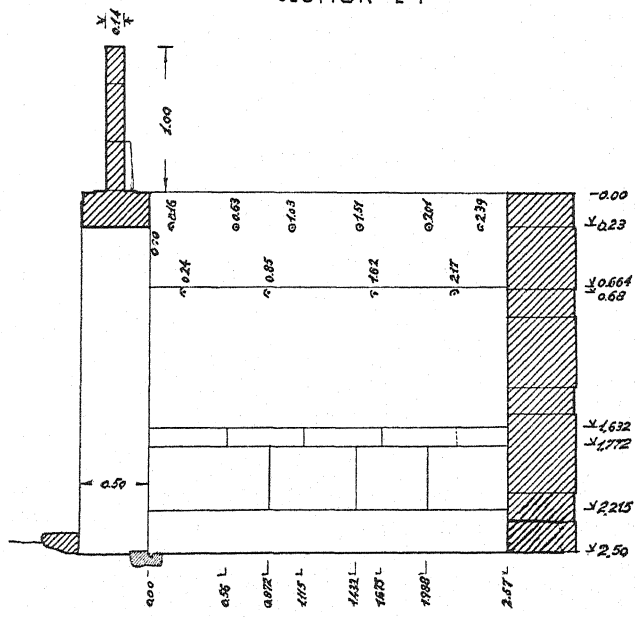
FACADE



SECTION E-F



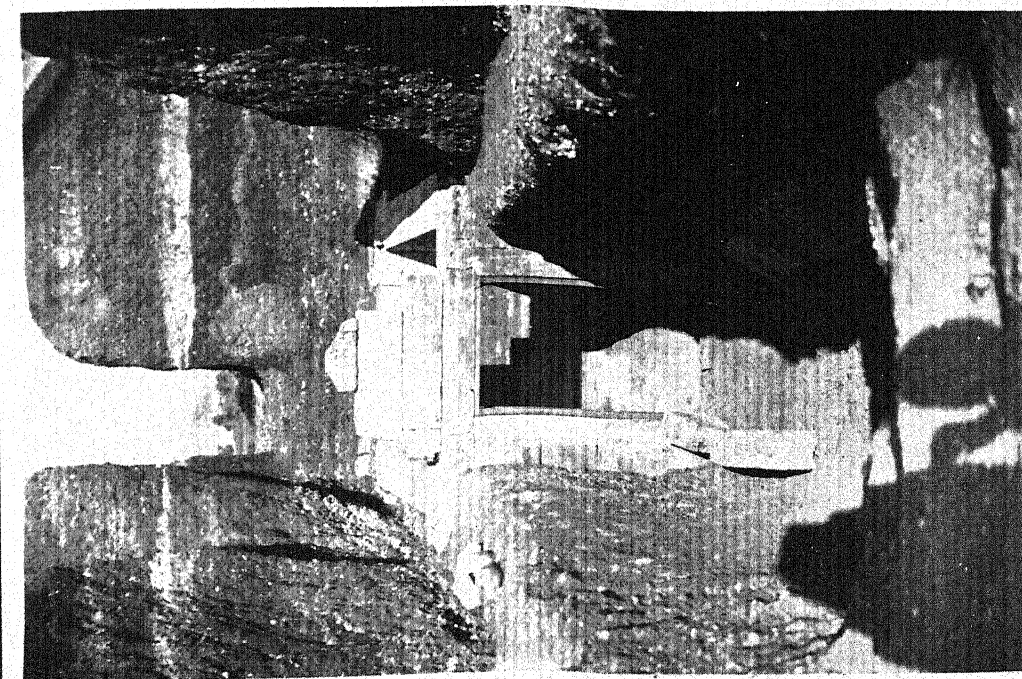
SECTION A-B



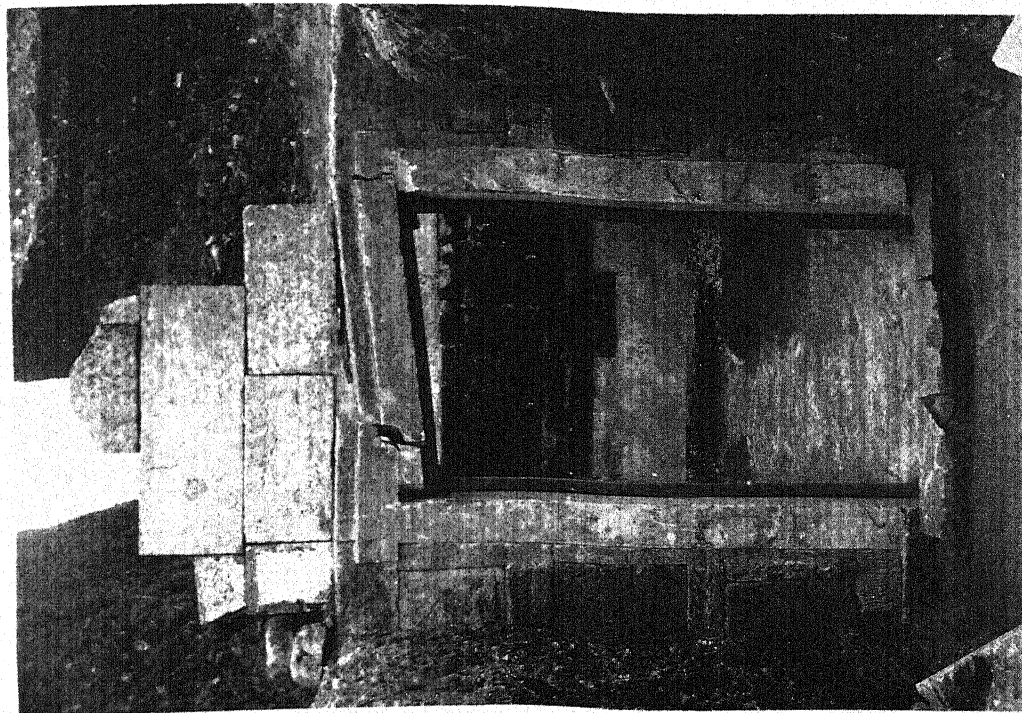
SECTION C-D

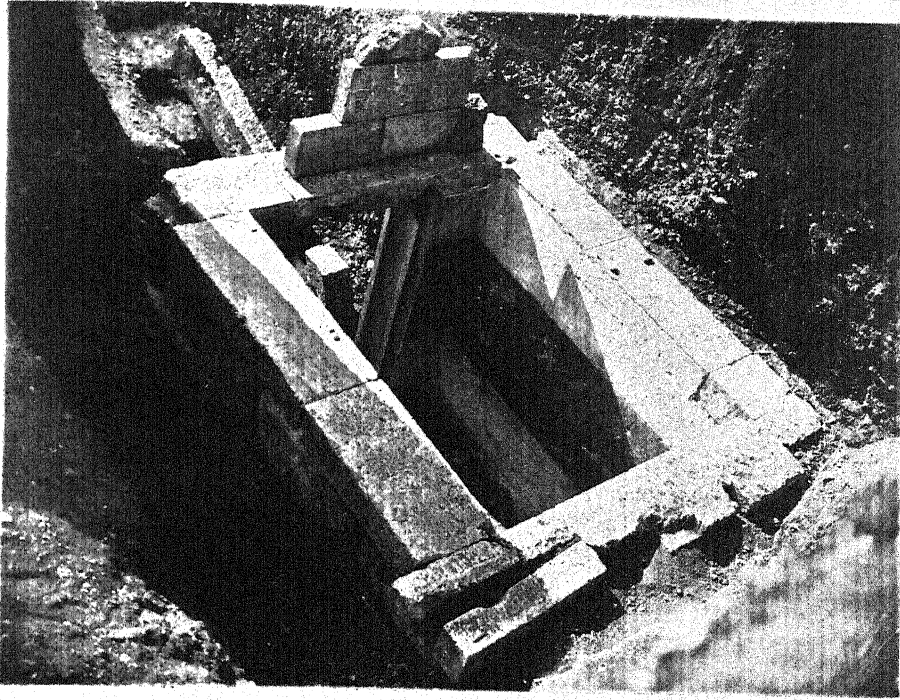
arch. I. TRAVLOS
1934

Detailed Drawings of Façade and Sections of Painted Chamber Tomb.

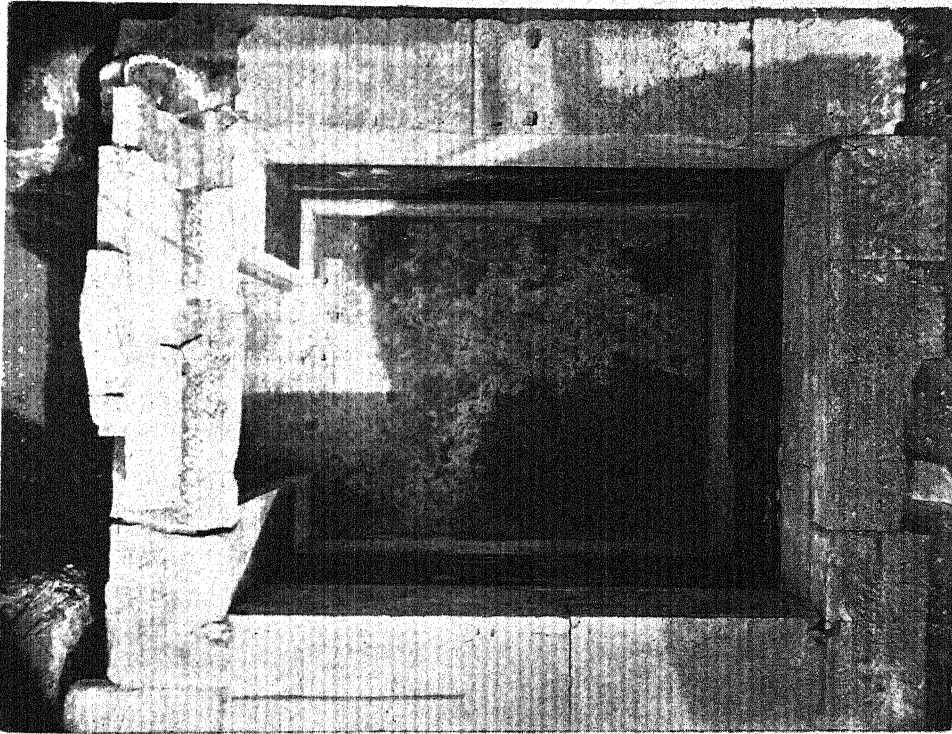


Entrance to Chamber Tomb. The view at the right shows entrance as found.
The view at left shows lintel replaced.



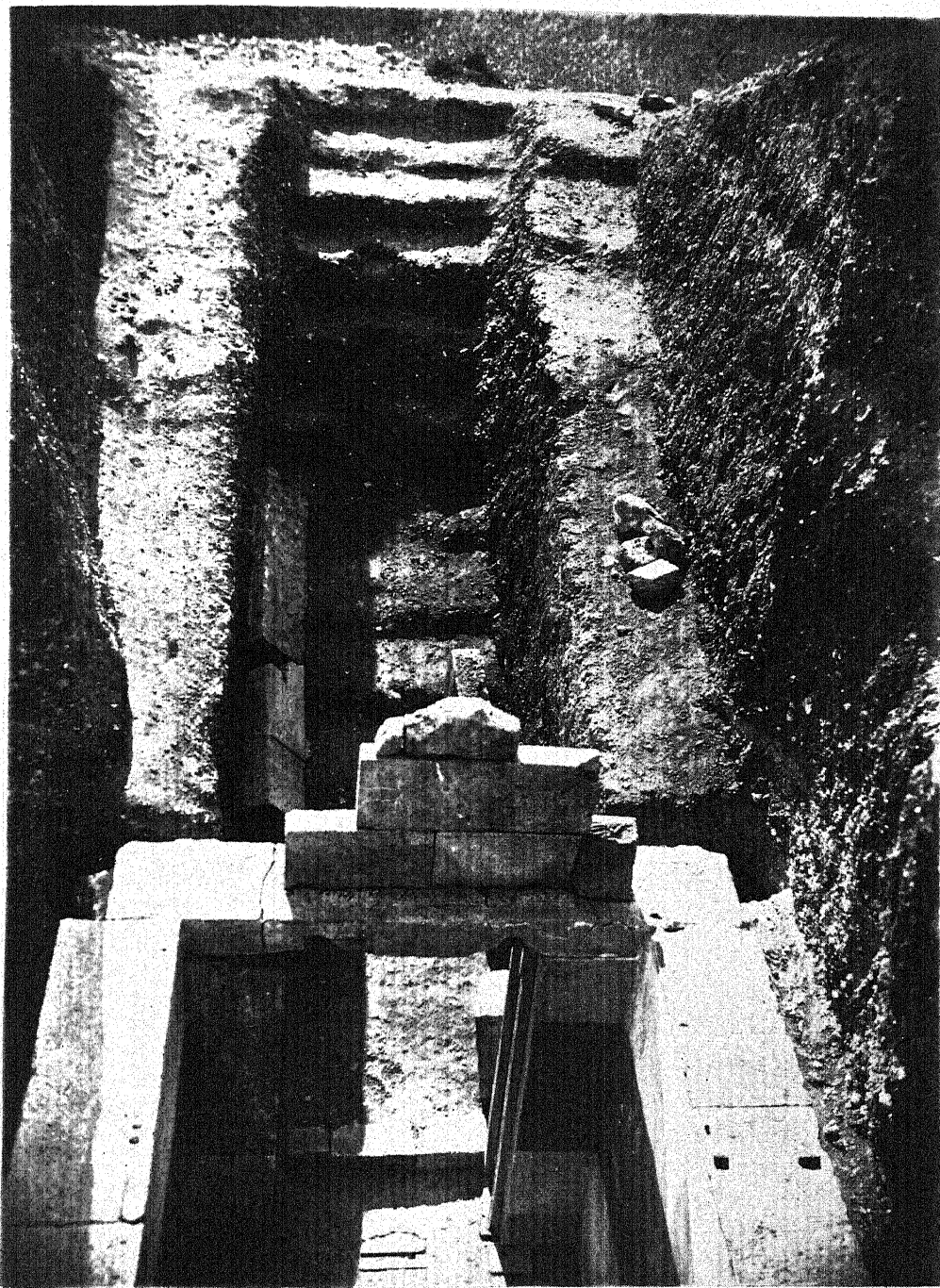


598 a



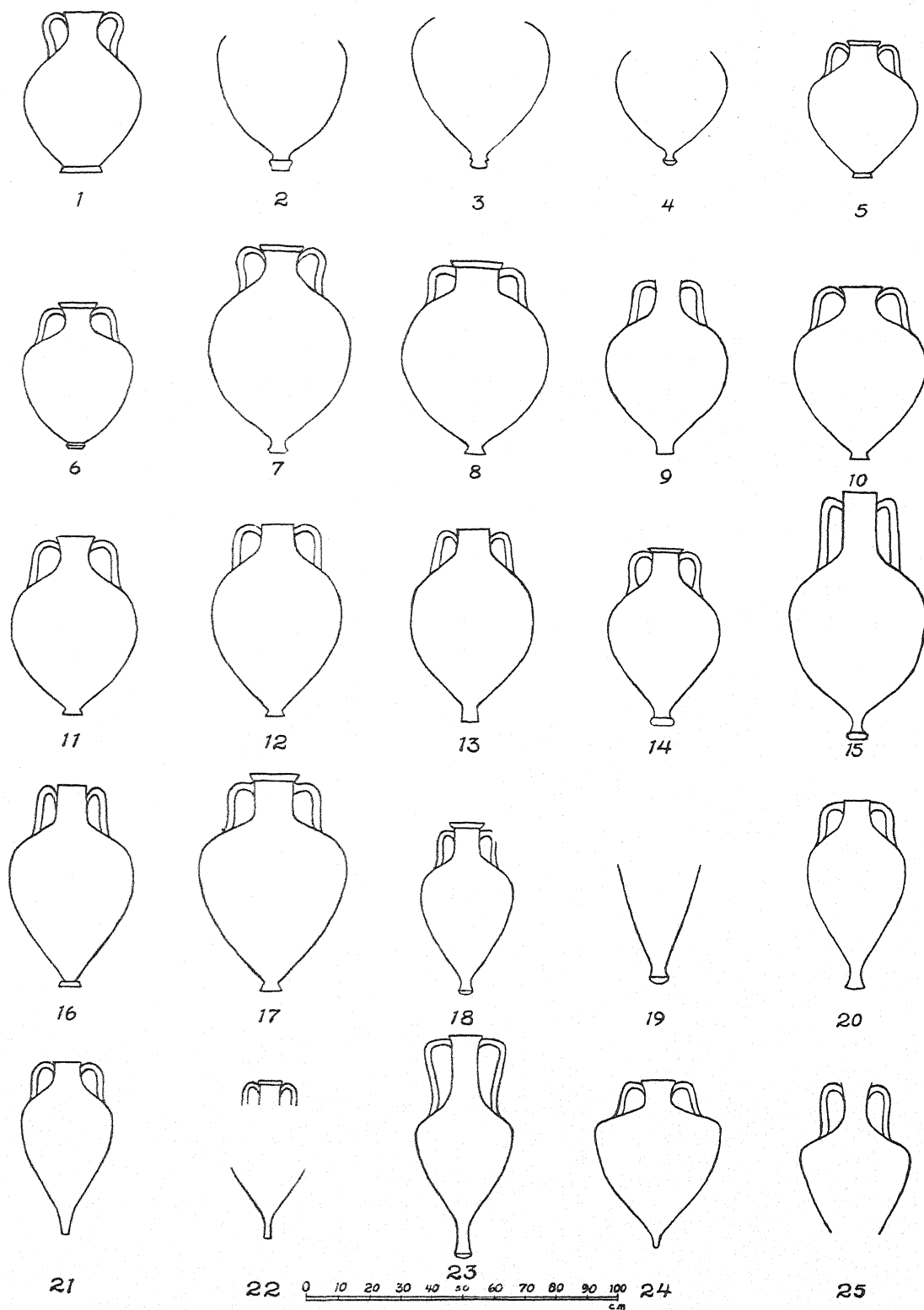
598 b

Views from top down into Painted Chamber Tomb.

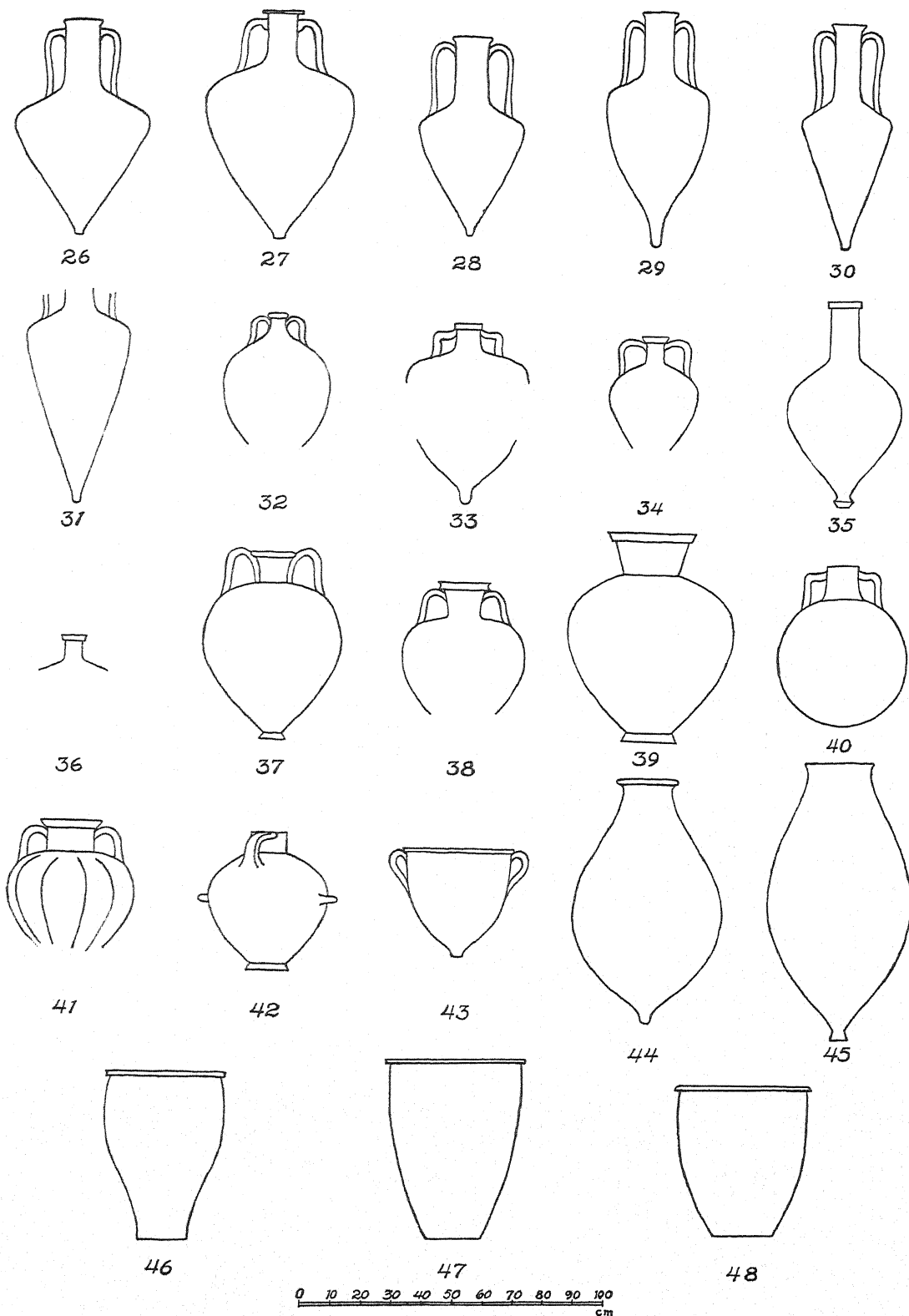


598

View of Painted Chamber Tomb from top, from east looking
toward entrance and stairs at west.



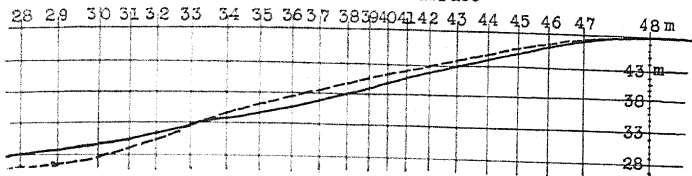
Drawings of different Types of Amphoras used in the *Enchytrismoι*.



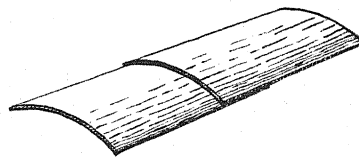
Drawings of different Types of Amphoras, Hydria (42, from Grave 453) and Jars used in the *Enchytrismoi*.

Elevation through graves 510 and 73, actual slope

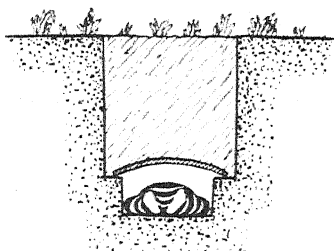
Solid line indicates present surface
Broken line indicates ancient surface



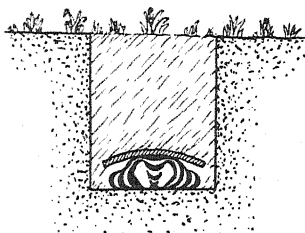
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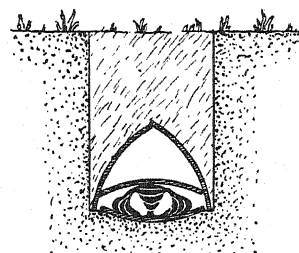
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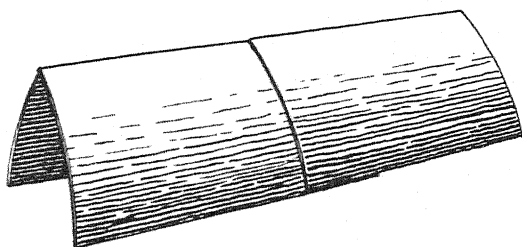
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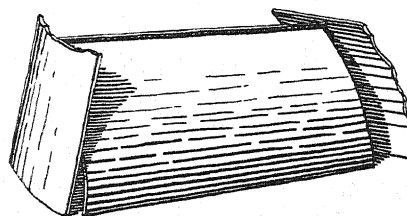
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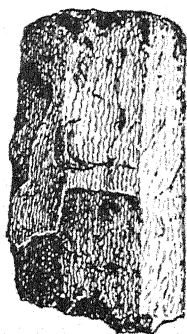
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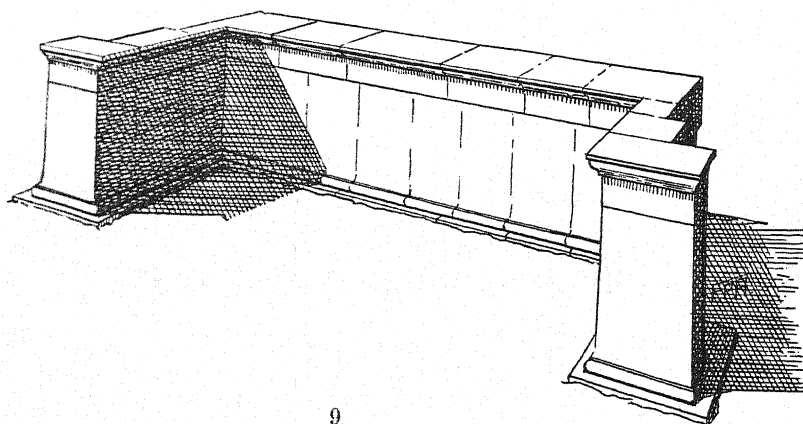
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7

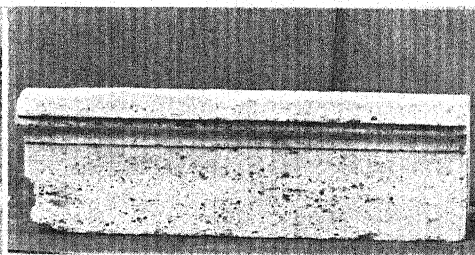
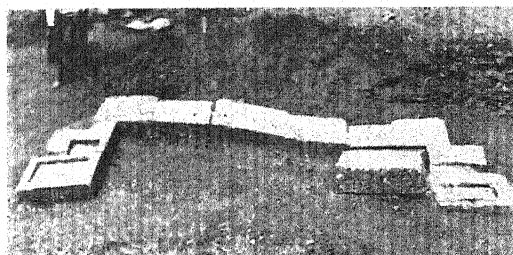
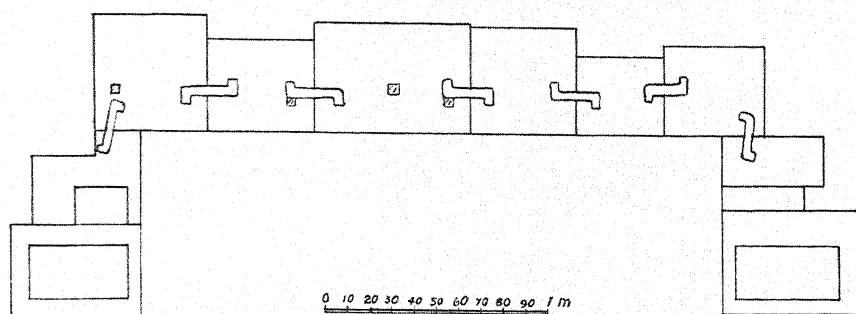


8



9

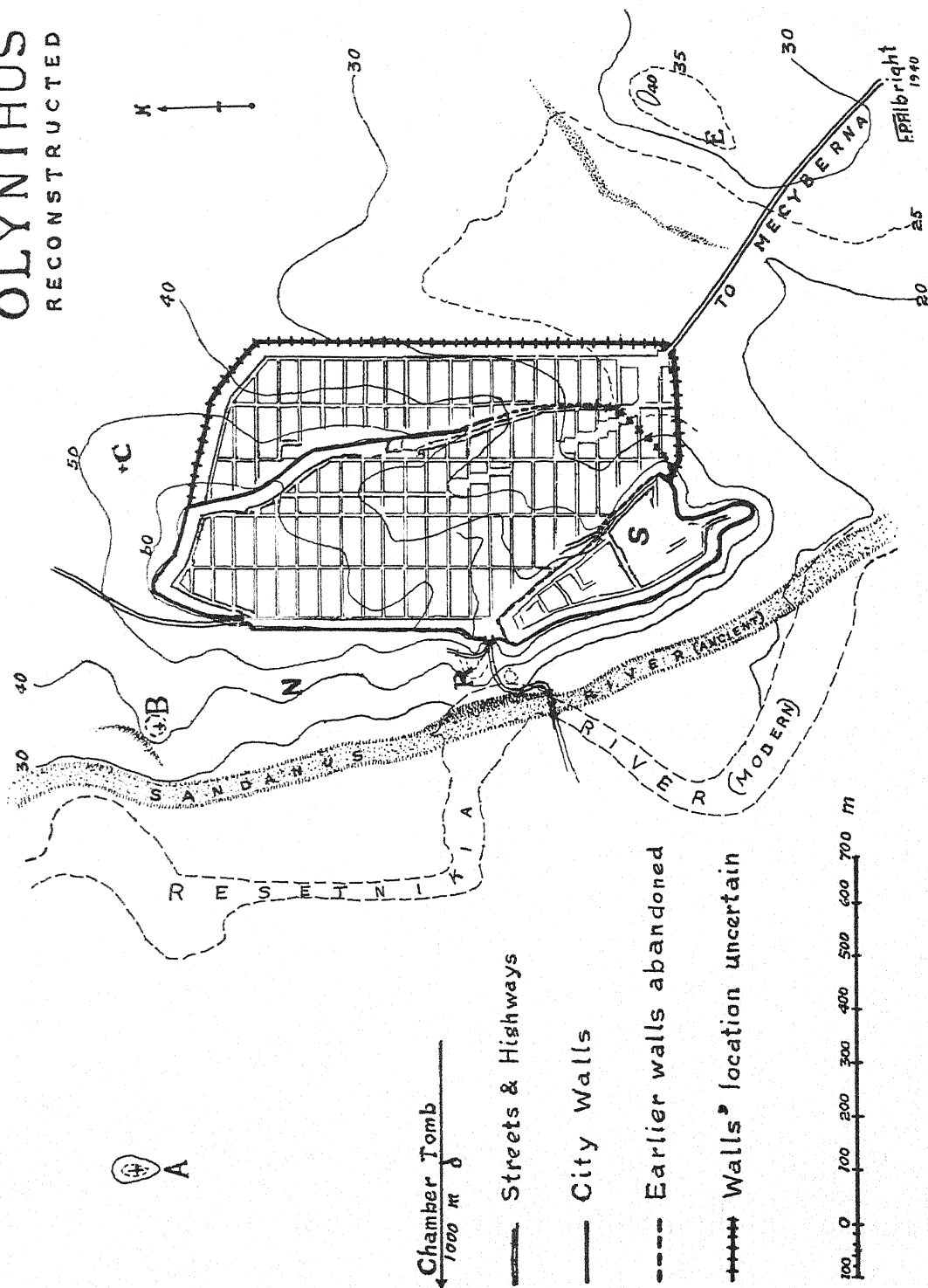
Types of Tile Graves and Monuments.



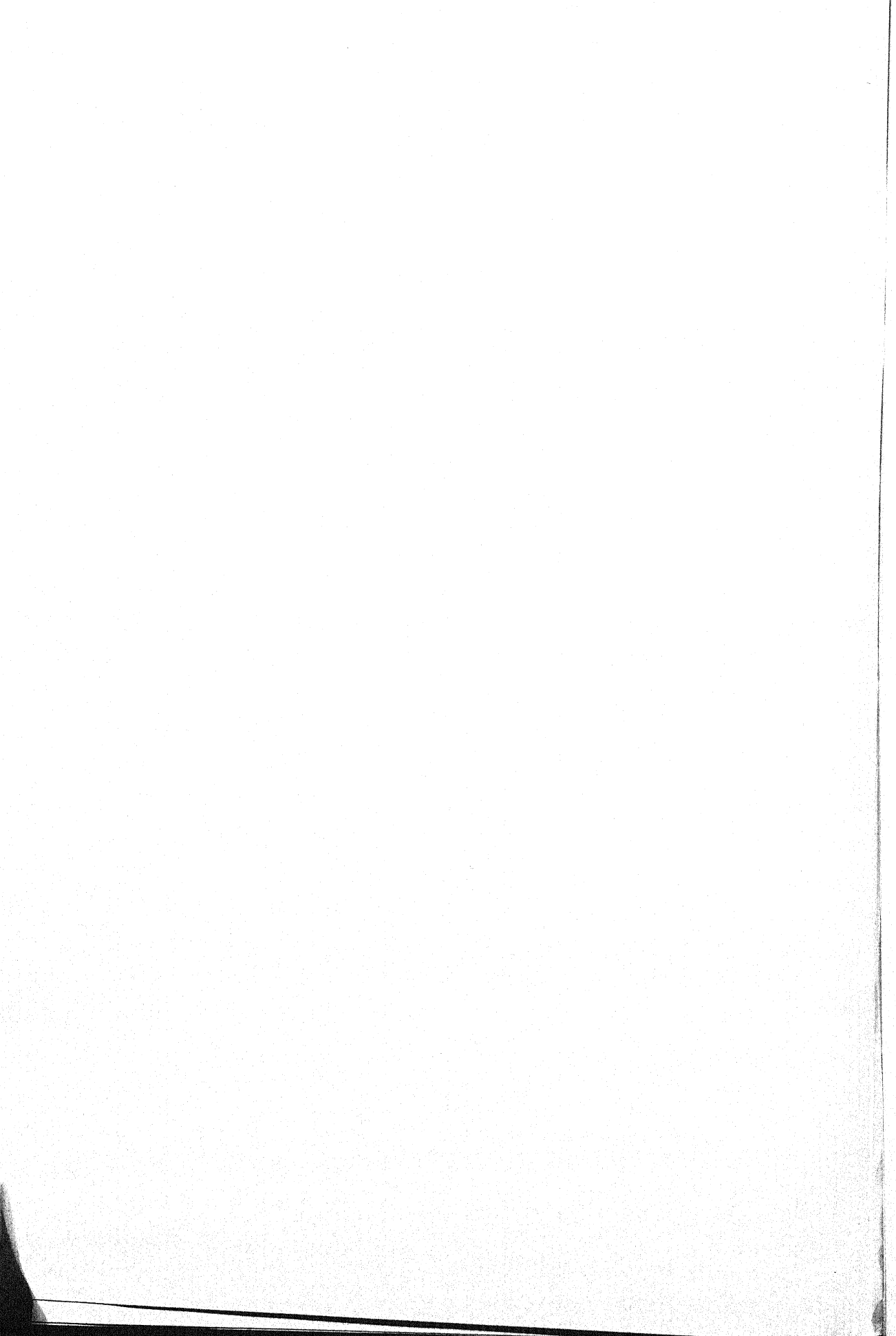
Plan (a), Photograph (b), Block with Cap Moulding (c), from Monument near Entrance to Riverside Cemetery (d).

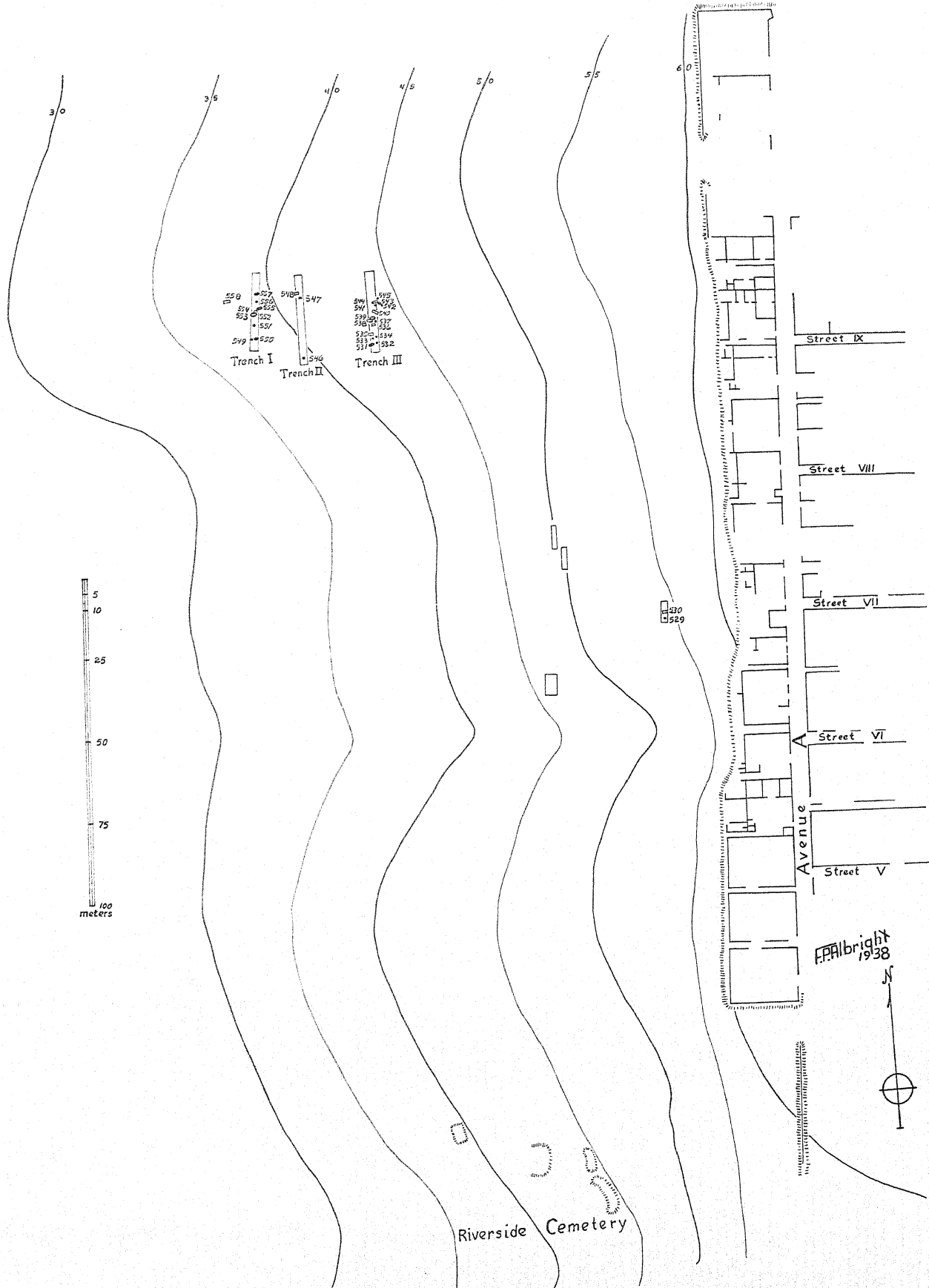


OLYNTHUS RECONSTRUCTED

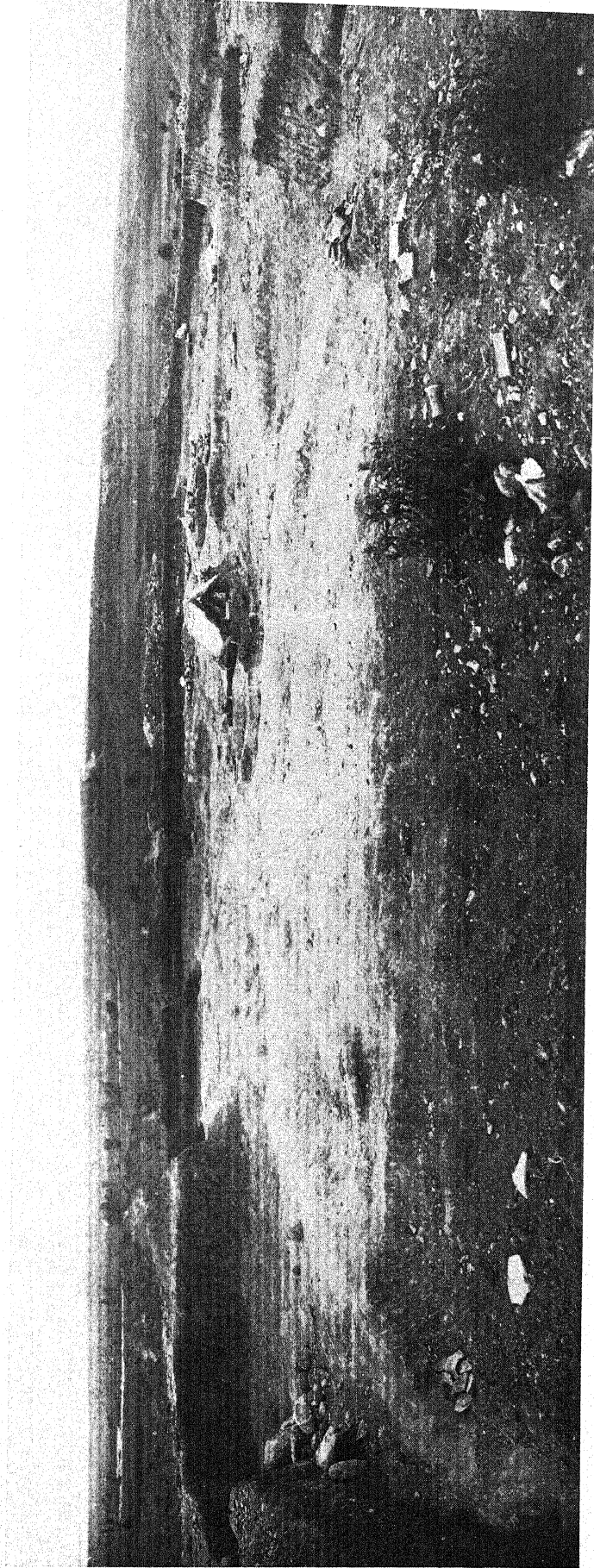


Reconstruction of North Olynthus, showing Location of Mounds A and B,
North Cemetery (N), Riverside Cemetery (R), Child's
Grave (S), and of East Cemetery (E).

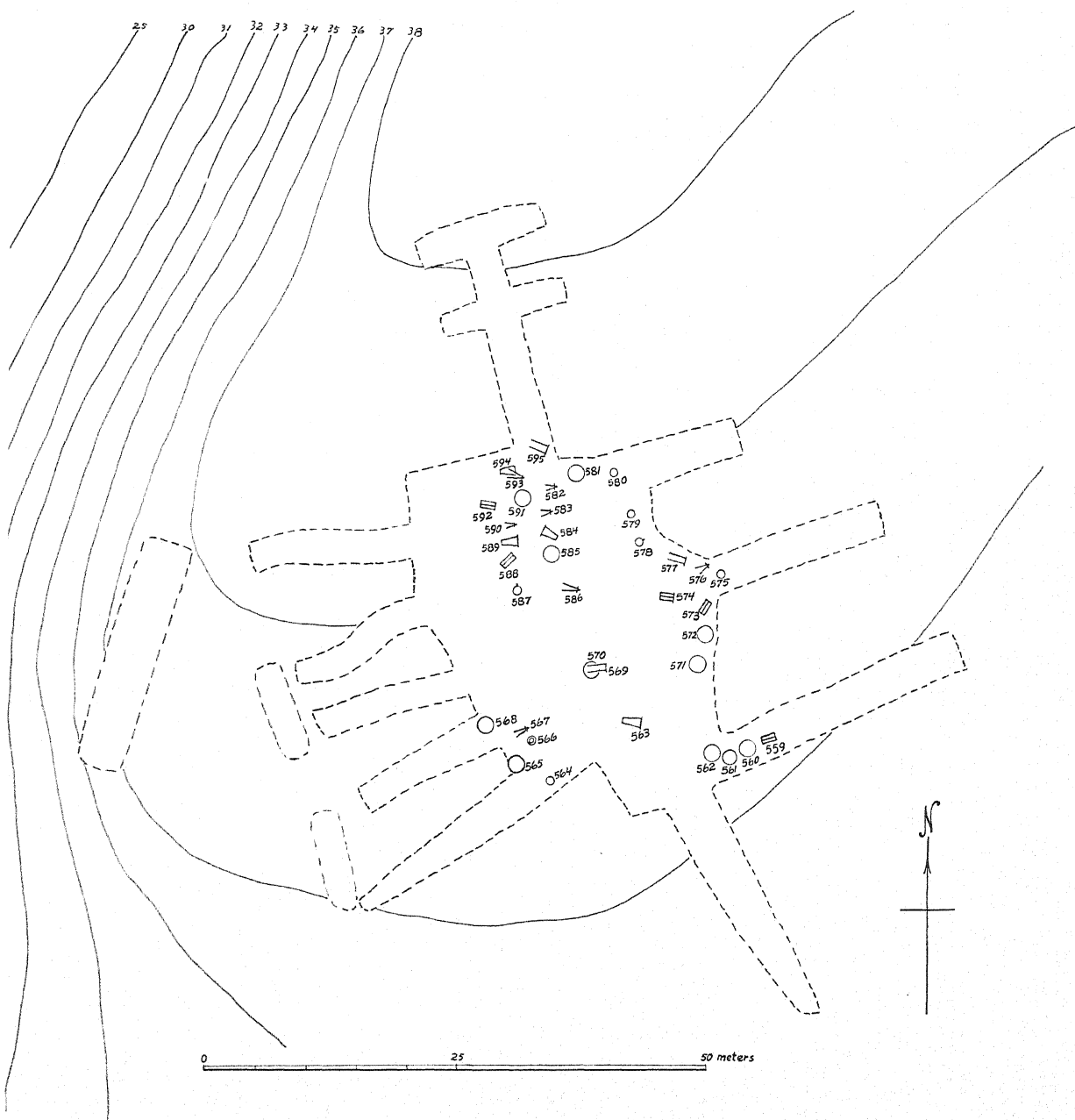




North Cemetery and Section of Riverside Cemetery with reference to Houses on Avenue A.

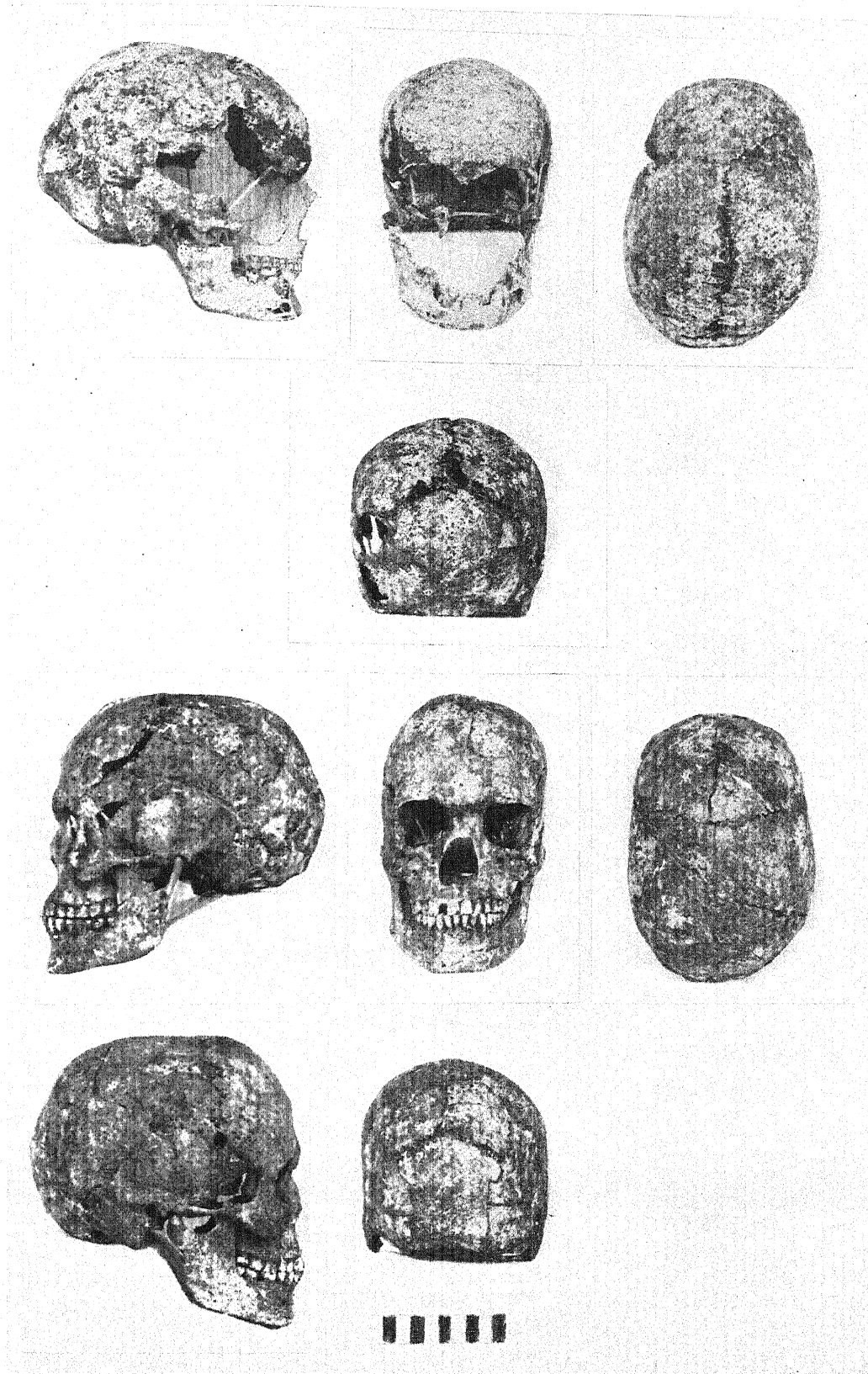


View of East Cemetery looking west toward South and North Hills of Olynthus. The Sandanos River appears in the left background.



Plan of Excavations of East Cemetery (1934).





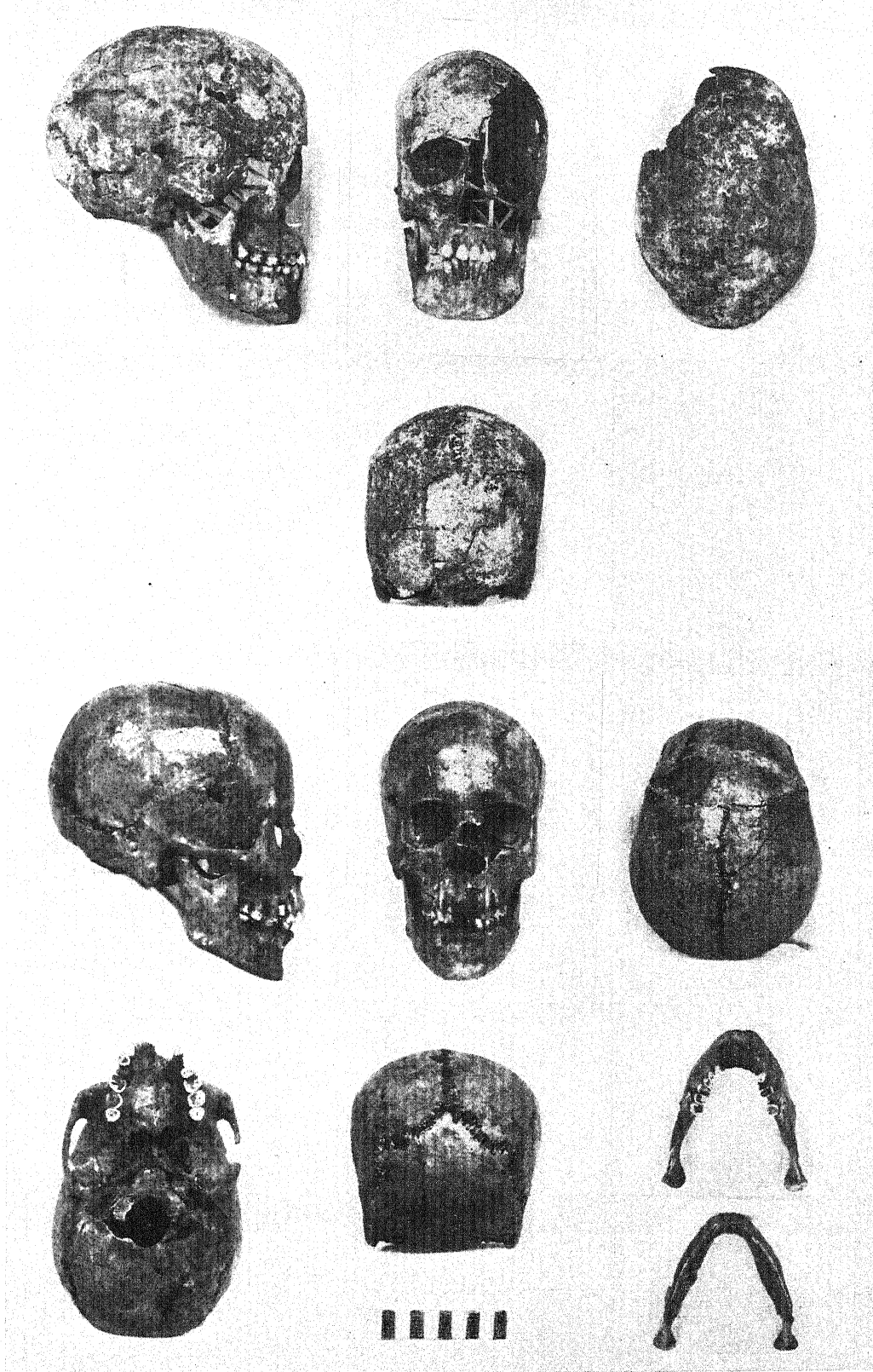
Upper: 1 Ol. (Olynthus), Grave 407. Male. To illustrate Type A, or short-faced Atlanto-Mediterranean or Megalithic.

Lower: 9 Ol. (Olynthus). Grave 485. Male. Type A.



Upper: 4 Ol. (Olynthus), Grave 466. Male. Dominantly Type C, or Alpine skull, with mixed Alpine vault tendencies.

Lower: 6 Ol. (Olynthus), Grave 459. Male. Type C or Alpine, showing rugged extreme of type.

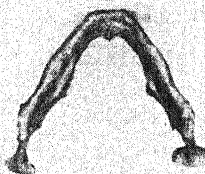
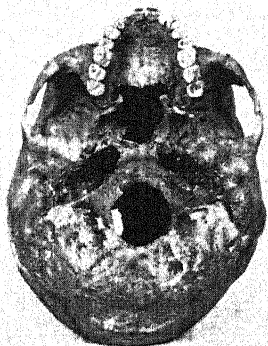
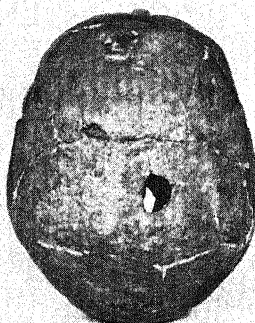


Upper: 3 Ol. (Olynthus), Grave 507. Female. Probably Type D, or "Hallstatt Nordic."

Lower: 1 Ser. (Servia), Grave under House E. N. 5, excavated by Heurtley. Male?

Type D or Dinaric-Mediterranean, gracile extreme. Second

Neolithic Period, *ca.* 2900 B. C.



Upper Left: Modern Male Olynthian, 35 yrs. old. Stature 175. Span 187.3. Head Circumference 551. Length 196. Breadth 137. Height 116. Bizygomatic 138. Face Ht. 122. C. I. 69.90. Hair Color, dark brown. Eyes gray-brown. To illustrate Type A extreme.
 Middle: Modern Male Olynthian, over 30 years old. Stature 170.5 cm. Span 182.2. Head Circumference 583. Length 201. Breadth 157. Height 143. Bizygomatic 149. Face Ht. 121. C. I. 78.11. Hair Color, brown. Eyes green-brown. Type A modified in Mixed Alpine direction.
 Right: Male Chalcedian from Hagios Nikolaos, 38 yrs. old. Stature 172. Span 174.4. Head Circ. 561. Length 188. Breadth 152. Height 108. Bizygomatic 145. Face Ht. 117. C. I. 80.85. Hair Color, dark brown. Eyes, gray-brown. Illustrates Type E or Mixed Alpine.
 Lower: N 13683 (Peabody Museum), Magdalenaburg, Carniola. Male. Alpine Type, some Mixed Alpine details. Hallstatt—La Tène.